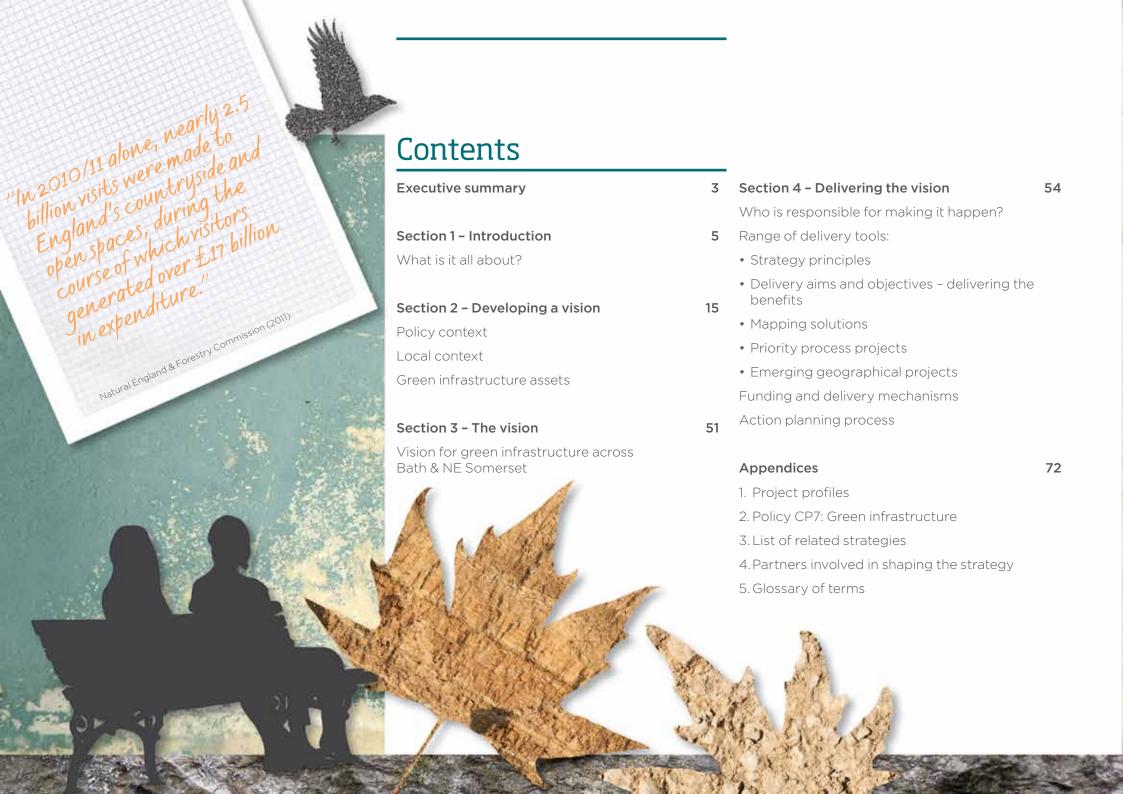
Valuing people, place and nature

a green infrastructure strategy for Bath & North East Somerset

November 2012

Bath & North East Somerset Council









It provides a framework for the Council and partners across a diverse sector of skills and specialisms concerned with social, economic and environmental planning and land use management.

It covers a wide range of agendas and those elements relating to planning policy and management will be embedded in the Local Plan including through the Placemaking Plan, Other elements will achieve weight through inclusion in related strategies and partner policies and work streams.

The document is in four sections:

- 1. What's it all about?
- 2. Developing the vision
- 3. The vision
- 4.Delivering the vision



Section 1 What's it all about?

A broad introduction to the Strategy, its role and how it has been developed, it introducing the subject of green infrastructure and why it is so important.

Green infrastructure is a term used to describe the networks of natural spaces and corridors that make up the natural environment in a given area. The range of benefits that green infrastructure can deliver are summarised as:



healthy lifestyles and thriving communities



active access and routes to the outdoors



landscape character and built heritage features



biodiversity



healthy ecosystems



climate change planning



local economy and natural tourism



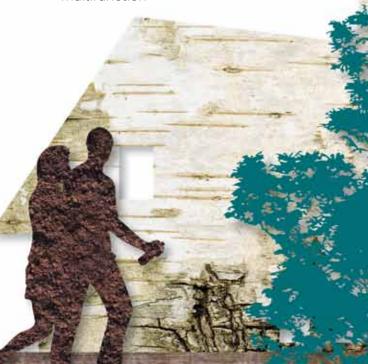
sense of place

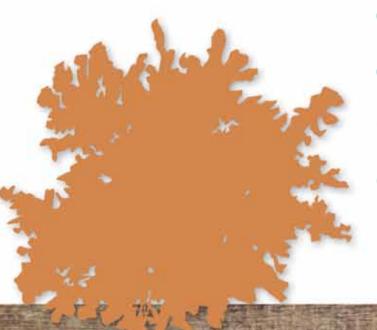
Achieving these benefits provides the focus of the Strategy.

Also highlighted is the need to:

- work at many different spatial scales from the strategic through to detailed neighbourhoods and specific sites.
- work in collaboration and through consensus

• and the importance of connectivity and multifunction





Section 2 Developing the vision

The context for developing green infrastructure across the district, it considers the national and local policy context, and considers "people, place and nature" by reviewing the environmental, social and economic characteristics that influence and shape local priorities. It also explores the detail of green infrastructure assets across Bath & North East Somerset and provides a series of district wide maps to illustrate this.

National policy confirms the need for a cultural change that puts the value of the natural environment at the heart of decision making and this is a key theme of delivery.

"People" priorities include the need to encourage greater use of green infrastructure by all residents and visitors, with a particular focus on activities that benefit children, older people and others with restricted mobility, and improving community access to nature.

"Place" priorities identified include, the need for coordinated management and enhancement of the exceptional local landscapes, including the setting of the Bath World Heritage site, and to ensure that green infrastructure planning is embedded and implemented through new development, recreation, tourism and green industries.

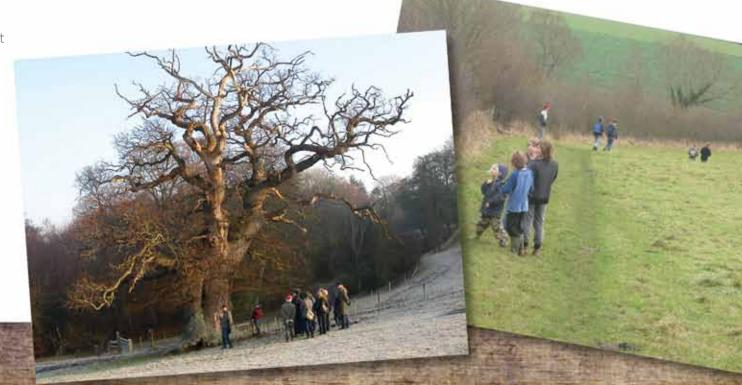
"Nature" priorities identified include the protection and enhancement of robust ecological networks and measures to sustain and enhance biodiversity.

The green infrastructure assets are mapped and reviewed to identify key issues, opportunities and priorities for delivering more benefits.

Section 3 The vision

The overarching vision for the district is complemented by a more detailed picture of the sort of change that we hope to achieve.

"By 2026 the Council and its partners will have worked with the community to achieve a well-used, managed, connected and expanding network of green infrastructure which provides a wealth of benefits for people, place and nature".



Section 4 Delivering the vision

The processes and mechanisms required to achieve the vision, it considers who should be involved in delivery. It identifies tools for delivery and explores funding and delivery mechanisms, then outlines the action planning process required.

It is recognised that delivery of the strategy vision is complex and ambitious. Success will be dependent on coordinated, targeted activity and strong working relationships with many partners including the local community.

Delivery will be achieved in a wide variety of ways and with different bodies taking the lead. The Council is identified as having a significant role to play with its broad environmental, health/social and economic responsibilities. In addition to coordinating the development of the Strategy and initiating the action planning process the Council will champion Green infrastructure and take the lead on a number of initiatives.

The tools identified to support delivery are considered to be key and include:

- Strategy principles providing fundamental guidance on how green infrastructure should be delivered
- Delivery aims and objectives setting out what needs to be done to deliver the green infrastructure benefits and providing a framework for the action plan
- Mapping solutions district wide issues and urban vision maps to show what we could and should seek to achieve
- Priority process projects to establish effective processes and procedures to deliver green infrastructure
- Emerging geographical projects to act as catalysts to inspire and guide development of the action plan

As a long term project, the Strategy is the start of a journey - success will only be achieved through the continued support and engagement of local residents, communities, businesses and a wide range of partners.





Introduction

This strategy provides a framework for realising and sustaining the full benefits of the natural environment to support people, place and nature.

It is about:

- Conserving and enhancing the natural environment
- Reconnecting people and nature
- Strengthening local communities
- Supporting a green and natural economy
- New ways of working across different sectors

The strategy is designed to provide a framework to guide Council staff and their partners concerned with social, economic and environmental planning, and land use management.

The Bath & North East Somerset (B&NES) area benefits from a unique and in places, outstanding natural environment. Where this is linked with good public access and recreational opportunities it provides invaluable assets for developing and supporting healthy, happy and vibrant local communities. This Strategy is about harnessing and sustaining the full benefits of these assets. In order to realise these benefits, the natural environment needs to be at the heart of decision making.

Green infrastructure is about creating, sustaining and managing the natural environment in ways that deliver services essential to quality of life. It is about enabling people to be active and to utilise natural spaces. It is about providing the natural infrastructure essential to help people live happier, healthier and more sustainable lives. It is about making our urban and rural landscapes much more accessible to people and wildlife.

The term "green infrastructure" describes the networks of natural spaces and corridors across a given area. Green infrastructure is made up of a wide range of green assets such as open spaces, parks and gardens, allotments, woodlands, street trees, green roofs, fields, hedges, lakes, ponds, meadows and grassland playing fields, as well as footpaths, cycleways and waterways. These are the "soft" places and edges of our built communities and the natural habitats and beautiful landscapes of our rural areas that together quietly control the background to our health and well-being. In recent years the important and multiple benefits that these assets can bring to people and society have often been overlooked or at best under-valued. The concept of green infrastructure and green infrastructure planning has been developed to turn this around.

the natural environment needs to be at the heart of decision making.





DEFRA (2010)

Benefits of Green Infrastructure

green infrastructure takes many different forms. It can be delivered at many different scales and can have many functions. It offers ways to protect and enhance ecological networks, prepare for climate change, build economic success, manage flood risk and improve health and well-being. It provides alternative active access options and quality green spaces for exercise and socialising. It should help to enhance landscape character and local distinctiveness and also provide attractive and appealing places to live and work.

In effect green infrastructure can deliver a range of natural services that provide significant environmental, social and economic benefits. These are well documented and include opportunities to:



encourage and support healthy lifestyles and thriving communities



support **healthy ecosystems** that provide many essential natural services including clean water and air



provide active access to the outdoors including, walking and cycling routes, accessible river and canal corridors and green streets



mitigate and adapt to existing and future effects of **climate change** through providing urban shade, sustainable drainage, flood alleviation, green energy and space for local food production



protect and enhance **landscape character** and **built heritage** features including the World Heritage Site and its setting



invigorate the **local economy** and increase **natural tourism**



protect and enhance **biodiversity** and create new habitats and wildlife linkages between them, reducing their isolation



enhance local sense of place



Valuing the natural environment to deliver these benefits is the focus of the Strategy.



Planning for green infrastructure

The protection, enhancement, creation and management of green assets to deliver green infrastructure requires new ways of thinking and working together. This is essential to achieve added value and multiple benefits. It requires thinking that is strategic, cross cutting and site specific. 'Multifunctionality' is central to the green infrastructure concept and approach and it refers to the potential for one site or location to provide a variety of green infrastructure functions.

A key role of the strategy therefore is to provide a framework to achieve consensus and cooperation across Council services, external organisations and stakeholders. Consensus about what green infrastructure assets we have, what green infrastructure interventions are needed and about how we can best work together to deliver green infrastructure. This consensus will provide a framework for new and innovative ways for partners to work together. It will provide value for money by identifying projects that deliver multiple outputs for people and communities.

Working at different scales

Green infrastructure works across many different spatial scales from strategic levels (sub regional and district wide), to local neighbourhood and site specific levels. Strategic green infrastructure at the landscape scale provides the wider framework and context to support green infrastructure at the more local levels. The strategic approach will enable the identification of the key strategic networks and spaces required to support and sustain the district's natural services and to link effectively with our neighbours. It also allows identification of key strategic projects that could be prioritised to optimise our strategic green infrastructure provision. At more local and site specific levels it allows the development and management of the finer grained green space and green assets required to support and invigorate local communities and also to deliver the benefits of strategic green infrastructure at a local level. Illustrative strategic, district wide and urban based maps are included within the Strategy.

This approach enables an integrated multifunctional network of green space to be developed operating at varying spatial scales, across neighbourhoods, towns and villages, through the urban/rural fringe and into the wider countryside.

Cross boundary working

The strategy for the district has been developed within the wider context of the neighbouring areas to ensure that cross-boundary issues are properly addressed. The Council has worked with the other West of England Unitary authorities to develop a green infrastructure framework for the West of England area (see MAP 1). The framework identifies strategic green infrastructure corridors and green infrastructure areas. The River Avon and Kennet & Avon Canal corridor is highlighted as a key strategic corridor along with two strategic green infrastructure areas based loosely on the Mendip Hills and Cotswolds AONBs.

The Council is also working with Wiltshire, Somerset and Mendips authorities to ensure consistency of approach with emerging green infrastructure strategies and to ensure that the green infrastructure networks link across administrative boundaries.



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Role of the strategy

The strategy provides a framework for the Council and its partners, to help deliver well-used, well managed, high quality, multi-functional networks of green corridors and assets, at all scales across the district and beyond into neighbouring areas.

It provides a set of green infrastructure principles, delivery aims and objectives, and identifies the need for new working practices, which together will support the delivery of Green Infrastructure across the district and beyond. It also identifies a number of emerging priorities and projects.

The ambition is to provide a strategy that is a living, targeted document that will generate an effective action plan and enable smarter working between stakeholders.

An overarching priority is to achieve a cultural shift in how decisions are made. The value of the natural environment needs to be at the heart of decision making for all those with a role in shaping, changing and managing the environment. The concept of green infrastructure is firmly supported through national policy and its wide ranging benefits well evidenced. Despite this in practice the natural environment is still undervalued and at worst viewed as a constraint on development.

To succeed, this Strategy needs to affect a cultural shift by working with decision makers and project managers across a wide range of Council services to embed green infrastructure into project delivery and to have the benefits of the natural environment properly understood by all. In particular the Strategy must engage the development sector. A key task will be to provide tailor made tools to support the Development Management process.

Making it happen

The successful delivery of the strategy vision will be dependent on coordinated, targeted activity and strong working relationships with many partners including the local community. Delivery will be achieved in a wide variety of ways and with different bodies taking the lead. An action plan will guide implementation.

Status of the strategy

The strategy covers a wide range of agendas including, but also beyond, those relating to the planning process. It is not therefore produced as formal planning guidance. Delivery elements relating to planning policy and development management will be embedded in the Local Plan through the Placemaking Plan which will include site allocations and development management policies. Other elements of the strategy will achieve weight and status in a variety of ways including through other related strategies and through external policies and work plans.





Policy Context

The Strategy brings together a variety of national agendas, (planning, natural environment and health), with the Council Vision and Values and the draft Core Strategy. It provides a framework for integrated delivery across these sectors and also proposes specific tools to deliver green infrastructure through the planning and development sector.

The Government White Paper (June 2011) - the Natural Choice: securing the value of nature, states that:

"A healthy, properly functioning natural environment is the foundation of sustainable economic growth, prospering communities and personal wellbeing". It "requires us all to put the value of nature at the heart of decision making" and supports the development of green infrastructure to achieve this".

We must empower people to take control, shape and care for their environment. The overall vision for B&NES is set out in the Sustainable Community Strategy (2009 to 2026) and is being delivered through a variety of plans and strategies lead by organisations involved in the Partnership. Green infrastructure is essential to achieving a sustainable future for the district.

The Council's own vision and values (Jan 2011) "puts people first and communities at the heart of everything we do". The vision is for a B&NES where everyone fulfils their potential, with lively, active communities and unique places with beautiful surroundings. Green infrastructure provides an important delivery mechanism towards achieving this vision.

The White Paper, Healthy Lives, Healthy People (2010): Our strategy for public health in England, also recognises that the quality of the environment, including the availability of green space and the influence of poor air quality and noise, affects peoples health and wellbeing. The "utilisation of green space for exercise and health reasons" is referenced as an indicator in the Department of Health's, "A public health outcomes framework for England, 2013-2016".

The importance of green infrastructure is also firmly embedded in the new National Planning Policy Framework (NPPF) March 2012 which states "Local planning authorities should: set out a strategic approach in their Local Plans, planning positively for the creation, protection, enhancement and management of networks of biodiversity and green infrastructure".

National guidance confirms that what needs to be done to enhance ecological networks can be summarised as "more, bigger, better and joined".

The NPPF also states that the planning system should contribute to and enhance the natural and local environment by "minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures".







The Local Development Framework, including the draft Core Strategy, sets out our policies for planning and land use across the B&NES area. Draft Core Strategy policy CP7 on green infrastructure sets out a requirement to protect and enhance a strategic green infrastructure network across the district and requires development of this Strategy. The draft Core strategy also recognises the River Avon and Kennet and Avon (K&A) canal corridor as an essential element of the strategic network. This strategy will inform and support a number of Local Development Framework documents including the Placemaking Plan, Infrastructure Delivery Plan (IPD) and Community Infrastructure Levy (CIL). A meaningful proportion of CIL funding will be available for the community to spend on local initiatives, which could include delivering green infrastructure. The strategy will help local communities to identify key local Green Infrastructure improvements when they prepare community or neighbourhood plans.

It will also take forward key aspirations in the Council's Green Space Strategy (GSS). This is particularly relevant to green infrastructure providing a review of the nature, extent and quality of public green space across the district, and highlighting areas of deficiency and over supply.

The GSS was adopted in March 2007 and is due to be reviewed and updated in 2013. Whilst there is a need to project forward the likely needs of the growth in population to 2026, as contained in the draft Core Strategy, the standards for green space included in the GSS are still valid and are incorporated into the broader Green Infrastructure Strategy.

These key policy inter-relationships are summarised in Diagram 1.

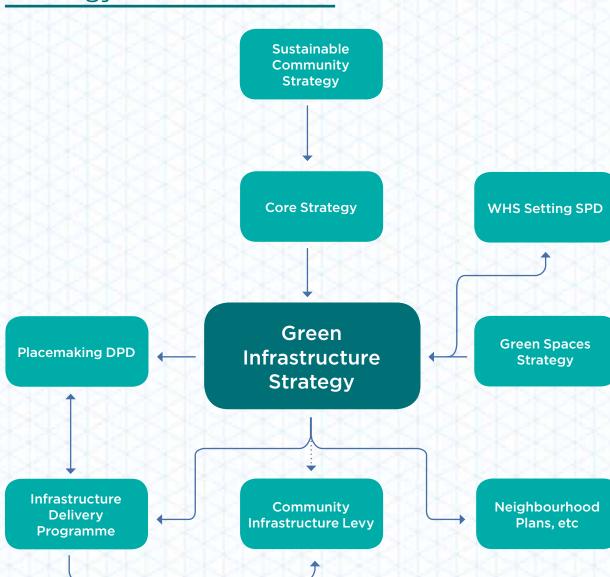
Other related strategies include the World Heritage Site Management Plan, the Public Realm and Movement Strategy, Rights of Way Improvement Plan (ROWIP) and the emerging Allotment Strategy. A full list is included in Appendix 3.

Policy priorities

- Put the value of nature at the heart of decision making
- Deliver through the planning process by integrating green infrastructure principles into the Placemaking Plan and other Local Plan documents
- Influence related Council strategies and work streams
- Deliver the biodiversity requirements set out in the National Planning Policy Framework

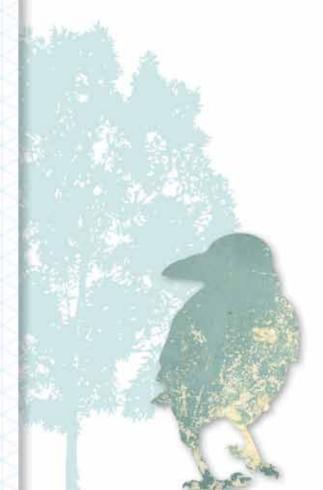
Diagram 1

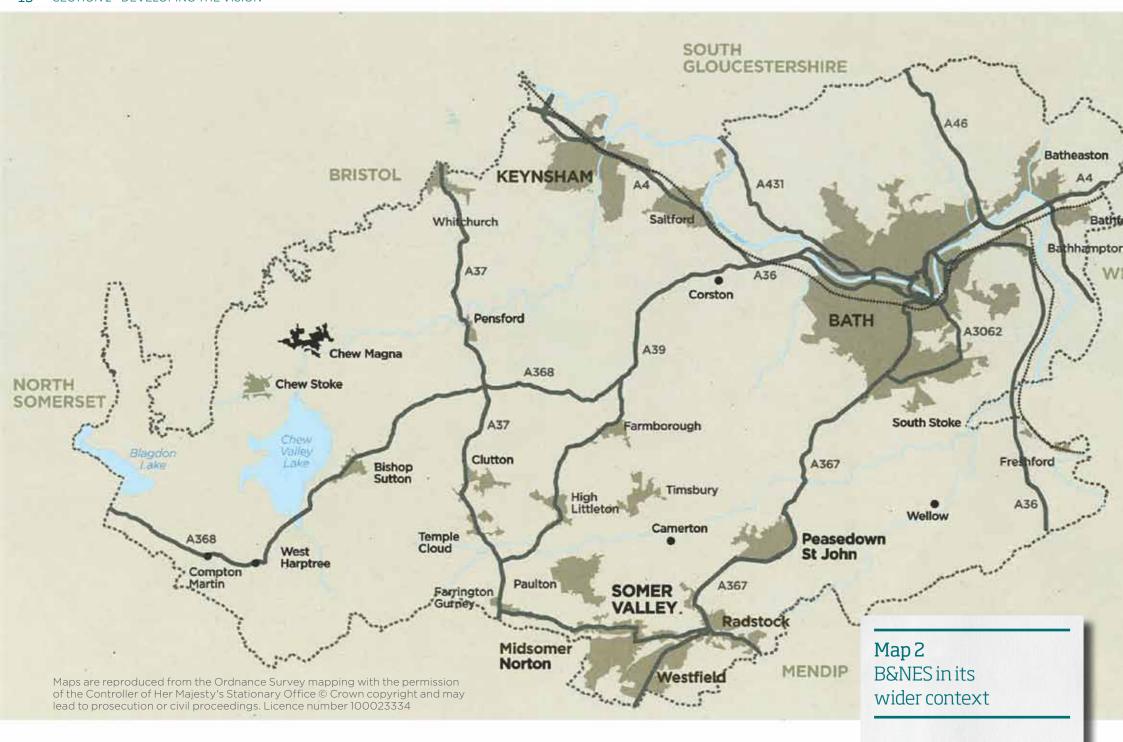
Green Infastructure Strategy



The local context

This section sets out "people, place and nature" characteristics in the context of green infrastructure by reviewing the significant environmental, health/social and economic characteristics of the B&NES area. These characteristics influence the direction and priorities for delivery of green infrastructure.







People

The district contrasts greatly in terms of the density and diversity of people. The 2011 census estimated the total population to be 176000, with approximately 50% of people living in the City. Outside of the city the main concentrations of population are at Radstock, Midsomer Norton, Keynsham and Saltford.

The population structure is set to change with a notable increase of older people, in particular those over 80 and also an above average increase expected in the 4-11 age range.

Studies demonstrate that there are strong positive links between our physical and mental health and levels of contact with the natural environment. Generally there are good opportunities to access the outdoors and green spaces across the district. However opportunities actively taken by people to explore and engage with natural environment are thought to be guite limited, probably reflecting a lack of awareness of the benefits and how best to access them.

Recent figures show that diseases related to being overweight or obese cost NHS B&NES £44.1m in 2007 and if no action is taken the cost will jump to £49 million in 2015. People living in areas with high levels of greenery are thought to be three times more likely to be physically active and 40% less likely to be overweight or obese than those in areas with low levels of greenery.

Within B&NES whilst average life expectancy is amongst the best nationally and health status is well above average, there is an unacceptable nine year gap in life expectancy and an eleven year gap in time free from illness across the district. There is also a higher than expected level of obesity in children and as our population ages we are experiencing rising levels of dementia and demand for mental health services for older people.

A significant proportion of our residents have some form of mobility problem including wheelchair users, those with short term health issues and families with children in buggies. Green travel routes should be managed and promoted to provide reasonable access to all users and a particular focus on improvements for users with reduced mobility.

Priorities for people

- Encourage activity that benefits older people and young people between 4 and 11
- Encourage activity that benefits neighbourhoods with lower life expectancy
- Provide improved access to green infrastructure for all users
- Prioritise improvements to address barriers to users with reduced mobility
- Increase opportunities for local food production
- Enhance and promote access to local and wider landscapes for recreation.



Place

The district forms part of the West of England sub region which has a population of just over 1.2 million Within this high quality environment space needs and the second highest economic productivity outside London. B&NES covers an area of 570km2, stretching from the outskirts of Bristol, south into the Mendip Hills and east to the southern Cotswold Hills and Wiltshire border. It is located in an area of the country well known for its beautiful natural environment, high quality of life and outstanding built environment. Over 90% of the district is rural and there are 47 rural parishes Map 1 shows B&NES in its wider context.

The district encompasses a diverse range of places. each with their own distinctive history, identity and communities, including the City of Bath which is a designated World Heritage Site (WHS). The green setting of Bath is critical to its World Heritage Site status but currently lacks a coordinated approach to management to ensure that its quality and special character is maintained and enhanced in the long term. The River and canal corridor particularly through Bath and Keynsham is also a significant element of the local heritage and needs a framework to guide delivery of multiple benefits.

The rural landscape is significant including parts of the nationally designated Mendip Hills and Cotswolds Areas of Outstanding Natural Beauty (AONB). These areas, which cover over 30% of the district, together with other strategic assets like the river Avon corridor, the K&A canal corridor and the Bristol to Bath cycleway all provide opportunities to enhance and promote recreation and sustainable tourism. Well developed and promoted green

infrastructure can support opportunities to extend this natural tourism sector sustainably.

to be found for change and growth. The draft Core Strategy makes provision for around 10,700 new homes and around 8,700 new jobs up to 2026. Well planned and delivered green infrastructure can help to ensure that this planned level of growth is delivered in a more sustainable manner. It is also important that the potential benefits of existing green assets are fully realised to support growing and changing populations. This may require improved management, promotion and greater multifunctionality of public spaces.

The quality and variety of the natural and built environment is fundamental to this area's continuing economic prosperity and opportunities must be taken to ensure that new development protects. enhances and creates green infrastructure. The district's economy has a predominance of public sector related, retail, leisure and tourism employment. There is a need to create the conditions for a more environmentally sustainable economy with increased local employment, less overall commuting and a strong low carbon business sector. Good green infrastructure can help achieve this and attract creative and green industries.

The draft Core Strategy recognises the critical contribution of tourism to the economy and therefore the need to protect and enhance the characteristics that make the city of Bath special. The public realm of the city centre has suffered from decades of under investment. In particular it is recognised that a much better relationship is needed between the city and its river.

Priorities for place

- Ensure new development respects and enhances existing green infrastructure and creates new components
- Increase benefits from existing green infrastructure assets
- Promote opportunities for sustainable natural tourism and areen industries
- Protect and enhance local landscapes and foster sense of place
- Support coordinated management of the green setting of Bath WHS



Nature

Whilst the wildlife resource of the district is likely to reflect the significant declines demonstrated at global and national levels it does benefit from areas of exceptional environmental quality and hosts a number of nationally, regionally and locally significant habitats and species.

The area is notable for its ancient woodlands and networks of ancient hedgerows. It hosts nationally important calcareous and neutral grasslands, and supports horseshoe bat populations of international importance. The main rivers support otters, kingfishers and some important migratory fish. Some of our post-industrial landscape features support rich mosaics of habitat supporting notable botanical and invertebrate interests. Areas of farmland and domestic gardens support important bird life.

These features represent key natural assets that can deliver a range of social and economic benefits. They must be protected, enhanced, extended, and sustained. Key to this will be the protection and enhancement of robust ecological networks across the district through well planned green infrastructure. Wherever appropriate community engagement with and access to wildlife assets needs to be improved to support this process.

In terms of the wider environment the need to address climate change is a key theme in the Sustainable Community Strategy. This sets a target to reduce carbon emissions by 45% by 2026. Predictions indicate that B&NES should expect hotter drier summers, warmer wetter winters and more extreme weather events such as heavy rain storms. Green infrastructure provides an important part of the response to climate change, providing mechanisms to help reduce the causes of climate change, for example by reducing carbon usage, water generated renewable energy and biomass. Green infrastructure also provides mechanisms to adapt to the effects of climate change by providing natural solutions for flood prevention and urban cooling, and providing more robust and better connected natural habitats to enable species to move as the climate changes.

Priorities for nature

- Protect and enhance robust ecological networks across the district
- Increase and enhance access to wildlife where appropriate
- Support opportunities renewable energy production including biomass
- Reduce urban heating
- Establish a green Infrastructure delivery framework for the river and canal corridor



Existing green infrastructure assets

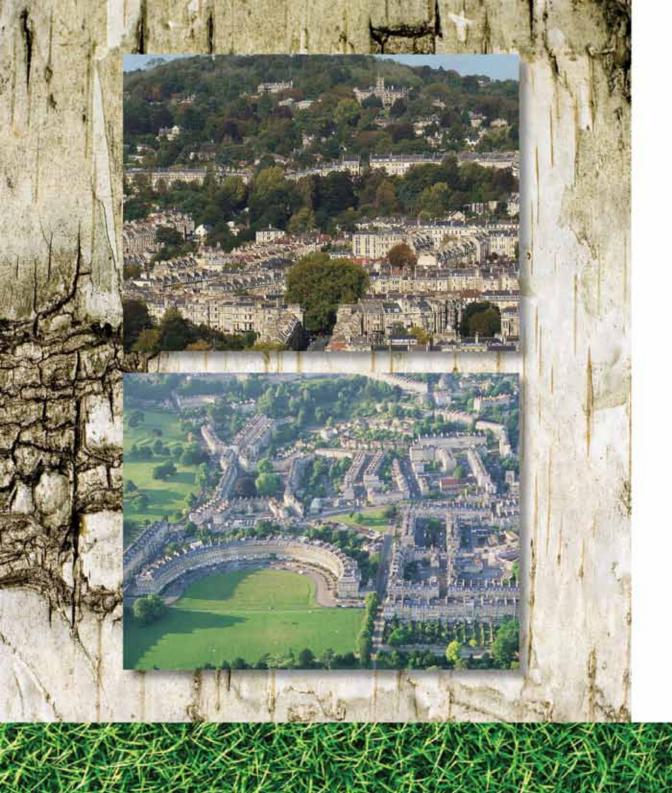
The district already benefits from a wide range of green infrastructure resources, made up of many different types of green assets. During strategy development, assessments have been carried out of these assets including a review of the current character and distribution of each asset, followed by an appraisal of key issues, opportunities and priorities for delivering more benefits. This section summarises the key conclusions arising which have then been used to inform the vision, principles and priorities for green infrastructure delivery. Table 1 provides a summary of the main green infrastructure assets and data sets available. The majority of data are available digitally and have been used within the Strategy. The table also shows the main green infrastructure benefits associated

Table 1

Green Infrastructure Assets

assets	description	main benefit
Landscape and built heritage	protected landscapes including AONBs; World Heritage Site; WHS setting; historic parks and gardens; scheduled monuments; locally valued landscapes and features	
Biodiversity	UK priority species and habitats; local nature reserves; woodlands; sites of nature conservation importance; strategic nature areas; special areas of conservation; special protection areas; water courses; water bodies; veteran trees; ancient woodlands hedges and roadside verges	
Trees and woodland	woodlands ancient woodlands; urban forest; trees in streets; gardens and churchyards; orchards	
Ecosystem services and water management	woodland; priority habitat; national character areas; water courses and water bodies; agricultural land types;	
Recreation and open spaces	open access land; parks & open spaces; playing fields and recreation grounds local nature reserves; woodland trust sites; wildlife trust reserves; cemeteries	
Active access to the outdoors	public rights of way; promoted routes; cycleways;	
Local food	allotments; orchards	





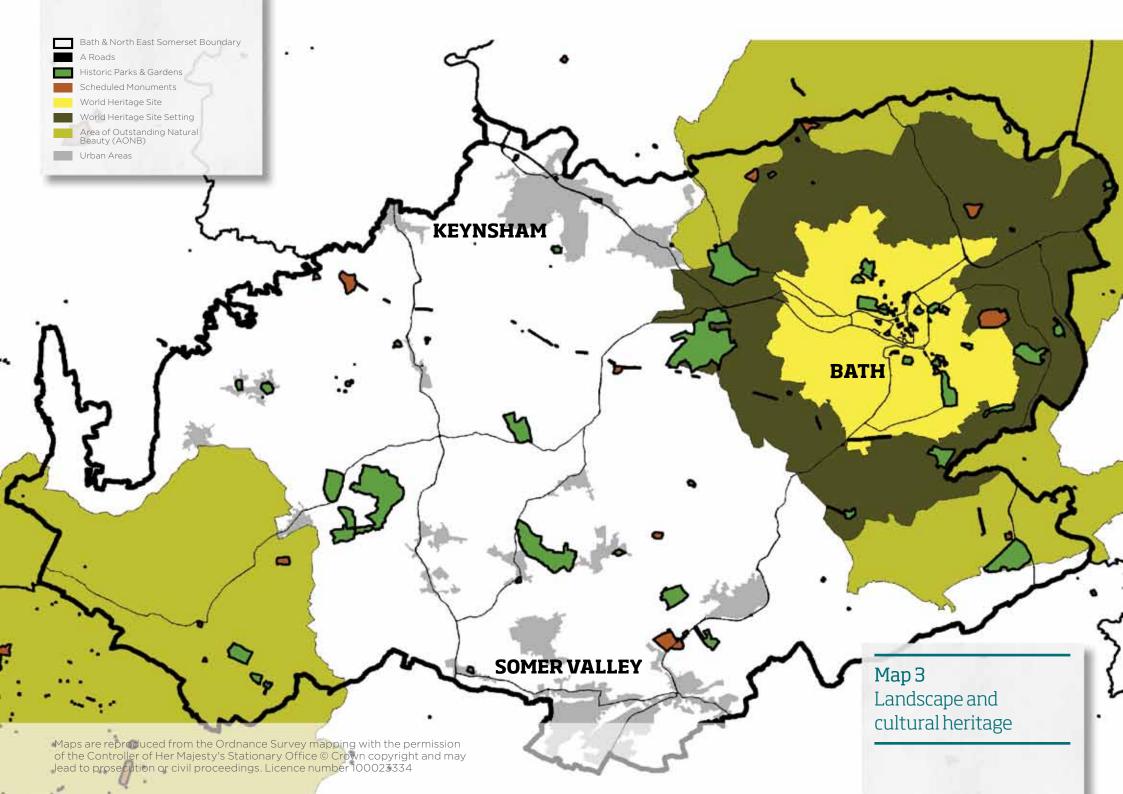
Green infrastructure and landscape & built heritage

Well designed and managed green infrastructure assets which compliment landscape character and heritage, and engage local communities can enhance local sense of place and foster community spirit.

The value of a well-managed, protected and appreciated natural and built heritage to both our quality of life and to the economy is well established. Heritage tourism contributes £20.6 billion to the GDP a year, and is particularly relevant to the City of Bath.

Green infrastructure can contribute to maintaining and enhancing the value of our local landscape and built heritage through protection of settings and promotion of green access where appropriate.





Local landscape and built heritage assets

The district benefits from significant landscape, cultural, historic and archaeological assets. The World Heritage Site of Bath is of obvious significance and its green setting is recognised as a specific element of its outstanding universal value. Whilst the WHS Setting SPD is designed to define and protect its key characteristics there is currently no joined up plan or process to manage and enhance these significant green assets.

The district also contains landscapes of national significance within the Cotswolds and Mendip Hills Areas of Outstanding Natural Beauty (AONB). These are an important resource for residents and visitors alike, providing exceptional opportunities for access, recreation and sustainable tourism.

The district character is also shaped by the significant modern, historic and pre-historic times and the effects of the industrial revolution are notable. The restored K&A Canal is a significant green asset, connecting the centre of Bath to the wider countryside and beyond, and there are several dismantled railway corridors which provide existing or potential recreational corridors.

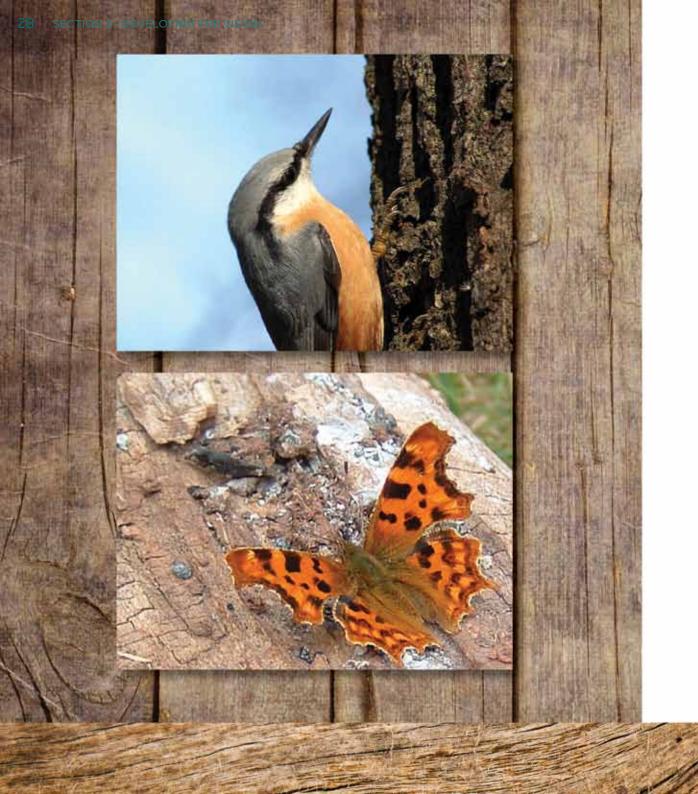
The district has a wealth of archaeological assets, many hidden from view or not well understood. These could provide major assets for promoting informal recreation and enjoyment of green spaces especially on the urban fringes. The historic Wansdyke running through the district from South Stoke to North Wick, is particularly notable. It provides an exciting opportunity for an interpreted green corridor linking Bath and South Bristol, based on the historic feature and securing habitat connectivity, access to the outdoors and natural tourism benefits.

The main landscape and built heritage assets of the district are shown on Map 3. All help to shape our local landscapes and townscapes and are central to local distinctiveness and sense of place.

An understanding of landscape and historic character and the involvement of local people is essential to maintaining and enhancing the high quality environments we enjoy and will need to be a key component in planning green infrastructure projects.

Landscape and built heritage priorities

- Secure appropriate management of the World Heritage Site green setting
- Design and deliver green infrastructure that protects and enhances important views and the local landscape character
- Protect and enhance the identities of settlements and their settings
- Safeguard and enhance access to important view points and heritage assets
- Explore opportunities for a multifunctional greenway focused on the Wansdyke.
- Engage local communities in actively caring for local landscapes and enhancing local sense of place

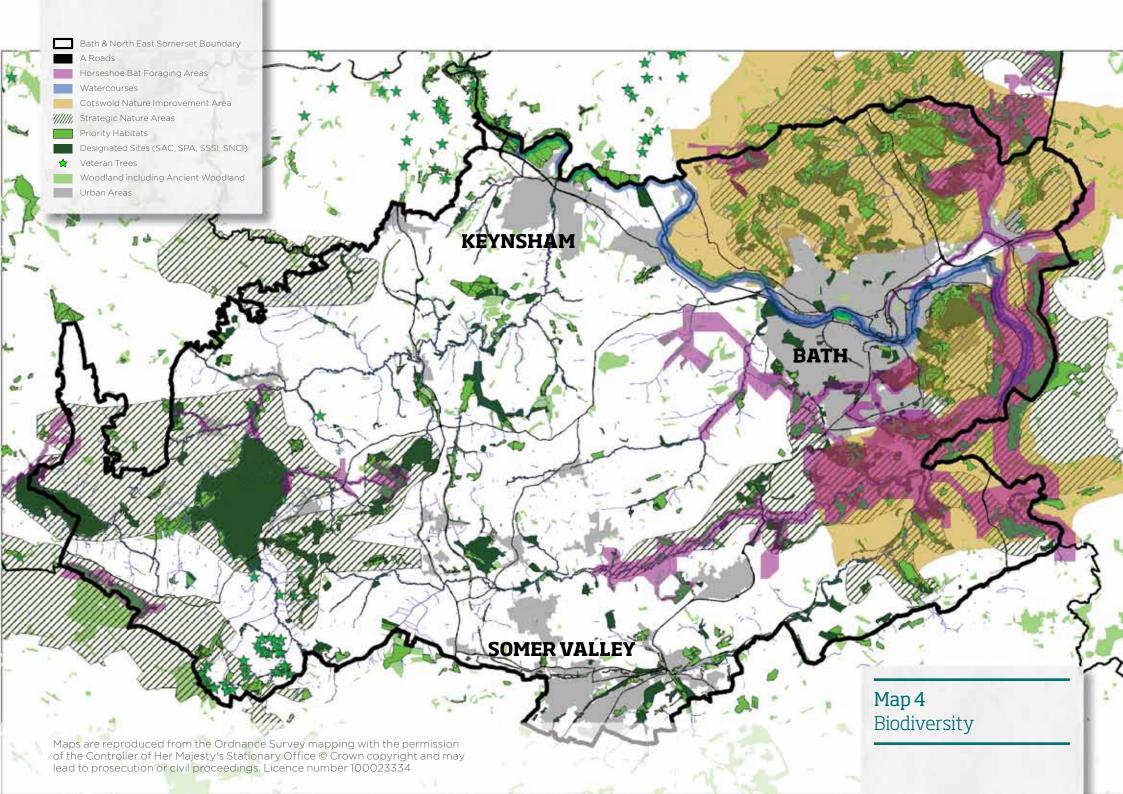


Green infrastructure and Biodiversity

Green infrastructure provides a key mechanism to help the government achieve its target of moving from a net loss of biodiversity to a net gain and this is as important in B&NES as elsewhere. Well planned green infrastructure provides critical opportunities to help protect and enhance biodiversity and to help deliver robust ecological networks.

Within new development provision can protect key features, provide new bio-diverse areas of benefit to both people and wildlife, and provide important new connections for wildlife.

A green infrastructure approach to the management and development of public open space can provide mechanisms to enhance biodiversity, to enhance ecological networks and provide better opportunities for people to enjoy and access nature.









Biodiversity assets

The district falls within 2 national character areas. each with rather distinct habitat qualities and characteristics. It includes, either in whole or in part 8 strategic nature areas as identified by the south west biodiversity partnership, and hosts many nationally and locally designated sites.

There are 7 local nature reserves within the district and a number of wildlife trust and woodland trust reserves. The district is also served by a good variety of voluntary wildlife groups and organisations.

The natural environment is largely influenced by the predominance of mixed pastoral farming and is characterised by a variety of semi-natural habitats. These include unimproved calcareous grasslands and neutral grasslands; networks of ancient hedgerows; pockets of ancient woodland and large standing waters. Chew Valley Lake is of national importance for over wintering birds and of international importance for Shoveler Duck. Areas around the south of Bath are of international importance for Horseshoe bats, whilst the whole district is notable for most bats, supporting 15 out of the 17 resident species recorded for the UK.

The district is drained by 3 main rivers, the Avon. the Wellow and the Cam. These provide important natural east-west corridors which support a rich diversity of species. The K&A canal supports an isolated population of water voles and areas of good aquatic habitat. The post-industrial landscapes of the central and southern areas are notable for their invertebrates and botanical interests. Our urban areas also provide significant resources for wildlife including, gardens, parks, green spaces, street trees and buildings. The city of Bath supports significant but threatened populations of birds including swifts and starlings.

These are all significant assets which require

Regrettably, we lack good baseline data to properly assess whether these assets are thriving, declining or remaining constant. However it is likely that our biodiversity will reflect national and international trends of decline. This is equally true of our rare and scarce species and our more common species. However we do know that much of our "good" habitat occurs in quite small and rather isolated and vulnerable blocks. This reduces the quality, vitality and robustness of our wildlife, making our biodiversity vulnerable to pressures from climate change and land use change. It also reduces the quality of services (ecosystem services) the natural environment is able to deliver to local communities.



These are fundamental issues that green infrastructure can help to address through the protection and enhancement of key features and the delivery of robust ecological networks.

The Avon Wildlife Trust's Living Landscape project has identified areas best suited for grassland restoration and provides a robust evidence base to plan for strategic habitat improvements. This provides an existing framework within which to deliver landscape scale habitat enhancement and restoration. Providing support for this and the Cotswolds Nature Improvement Area (NIA) projects will be key. It is also important to expand the approach to tackle other habitats such as woodlands.

Significant connectivity benefits could result from achieving strategic habitat links between and amongst our strategic nature areas and between the Cotswolds (including the Cotswolds NIA) and the Mendip Hills AONBs. This would begin to develop strategic ecological networks. What we mean by the term "local ecological networks" needs to be clearly defined, and protocols for their protection, enhancement and management need to be agreed and implemented. Given the importance of the area to internationally significant bat populations habitat connectivity is key.

New development provides opportunities to enhance urban ecology and provide areas for people to connect with wildlife.

There is a need to establish robust monitoring procedures to assess biodiversity change within the district. The network of active recording groups within the district provides an opportunity to help address this in ways that could encourage more people to get involved and to access the country side and wild spaces. Biodiversity assets are shown on Map 4.



Biodiversity priorities

- New developments should deliver net biodiversity gains
- Identify and deliver the full potential of Council owned land for biodiversity and people
- Deliver robust ecological networks, prioritising links between SNAs, SACs, the Cotswolds and the Mendip Hills and the river/canal corridors
- Improve urban ecology
- Work with partners to support on-going and new landscape scale projects
- Develop a robust biodiversity monitoring system to tie in with national targets
- Increase opportunities for people to connect with nature where appropriate





Tree and woodland assets

The wooded landscape around the edge of Bath is critical to the character of the city and included in the World Heritage Site citation. Whilst priority is already given to their protection this cannot be fully achieved without appropriate management and this needs to be actively encouraged.

There is currently no comprehensive framework for engaging the community, targeting new planting or ensuring appropriate management of these vital assets across the district area. Within urban areas there is a need to promote tree planting within private gardens and raise awareness of the value and contribution which private trees make.

The key woodlands assets of the districts are included in the biodiversity Map 4.

Tree and woodland priorities

- Review quality and condition of existing woodlands
- Identify need and prioritise locations for new woodland and opportunities to link these within and beyond the district
- Develop a tree planting plan to define opportunities for street trees and urban woodland
- Develop a target for woodland cover
- Encourage owners to bring existing trees and woodlands into positive management where appropriate

- Protect ancient woodlands, veteran and notable trees
- Increase community engagement with and awareness of the benefits of trees, through community planting, ownership and management
- Promote the importance of tree planting within private gardens
- Explore the role of wood fuel as a renewable energy source and encouraging woodland-based businesses



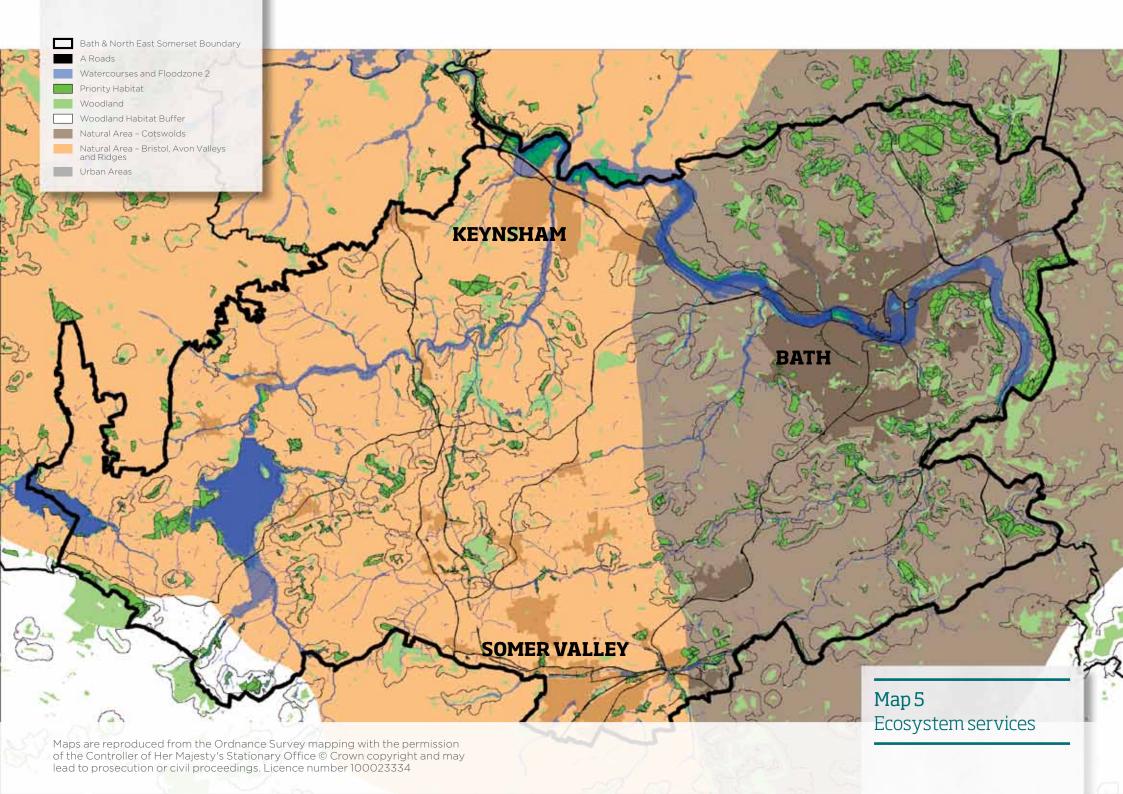


Green infrastructure and ecosystem services

A healthy natural environment supplies a multitude of life supporting and life enhancing benefits. These range from relatively simple services, such as crop pollination, to the highly complex services, such as maintenance of soil fertility, provision of sinks for waste or regulation of the climate. Ultimately all human life depends on these natural services (ecosystem services) for fundamental necessities such as clean air, clean water and food.

Recognising the natural environment as a critical service provider enables better and more considered environmental management. This is described as an ecosystem service approach.

The Government's Millennium Ecosystem Assessment 2005 concluded that whilst the UK's ecosystems are currently delivering some services well 30% are still in long-term decline from habitat deterioration. Population growth and climate change are likely to increase pressures on ecosystem services both now and in the future.



Healthy and robust natural environments provide better and more beneficial services than degraded or declining natural environments. Well planned and managed strategic green infrastructure provides an effective way to help protect and restore ecosystems, and the essential services they provide.

The Millennium Ecosystem Assessment (2005) provides estimated values of different natural services including:

- Pollinators to UK agriculture: estimated worth £430m/year
- Net carbon sequestration by UK forests: estimated worth £680m/year
- Wetlands in the UK: estimated worth £4.7bn/year
- Recreation: over £20bn/year estimated worth
- Health: house views of green space worth up to £450 per person each year

Ecosystem Service assets

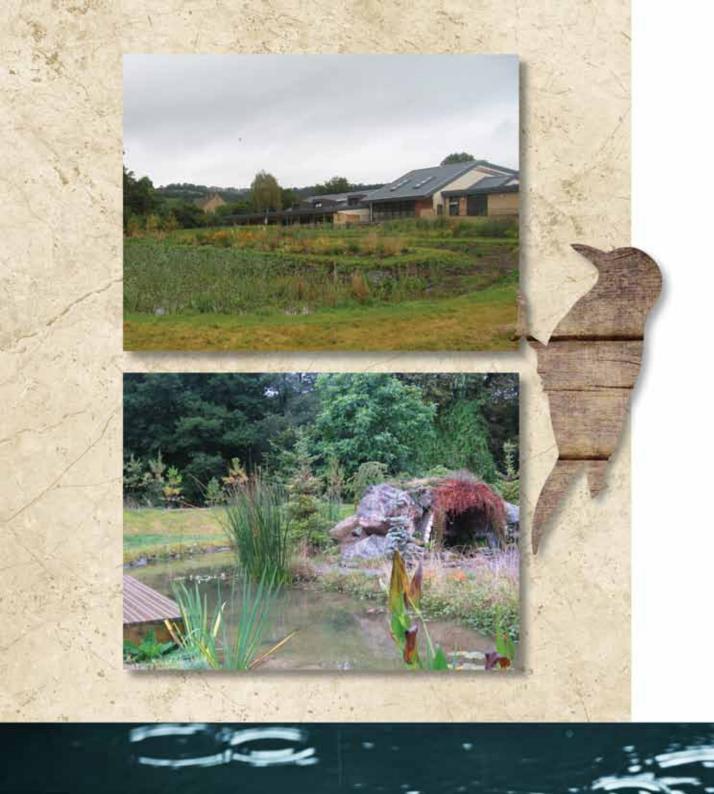
The assessment of ecosystem services to aid environmental management is in its infancy and we do not have detailed information for the district. The MEA breaks the natural environment into 8 broad habitat types that deliver ecosystem services at the landscape scale. The main lowland habitat types occur in the district, reflecting its diverse nature. Natural England will provide information on the nature and condition of ecosystem services in the area through its on-going work on National Character Areas. This will help shape priorities for strategic provision in the future.

Ecosystem services priorities

- Work with key partners to agree an "ecosystem position statement" for the district to set out key issues, threats and opportunities
- Promote wiser use and management of natural resources
- Prioritise green solutions for development infrastructure

Ecosystem services and water assets are shown on Map 5





Green infrastructure and water resources

The UK is predicted to experience an increase in winter flooding events and summer droughts through climate change. Green infrastructure provides significant opportunities to deliver 'space for water' and natural options for water resource management.

Water management

Under the Flood and Water Management Act 2010, the Council is defined as a lead Local Flood Authority and is required to produce, implement and monitor a strategy for the management of local flood risk. This includes flood risk from surface water, ground water and ordinary watercourses.

The principal main rivers in the district are the lower Avon, River Chew, Cam and Wellow brooks. The Environment Agency is the regulatory authority for main rivers. There are also artificial/man-made structures like reservoirs and canals, however the risk of flooding in the district from these sources is considered negligible.

Green infrastructure can contribute to making areas less vulnerable to flood risk whilst ensuring development doesn't increase flood risk to third parties. It can also help to alleviate flood risk by delaying the downstream passage of flood flows, reducing the volume of runoff through attenuation and promoting rainfall infiltration.



The UK is predicted to experience an increase in winter flooding events and summer droughts through climate change. Green infrastructure provides significant opportunities to deliver 'space for water' and natural options for water resource management.

Once Schedule 3 of the Flood and Water Management Act 2010 has been enacted, the Council will be responsible for the approval, adoption and maintenance of Sustainable Drainage Systems (SUDS). SUDS are the preferred approach to managing surface water. There are many different SUDS features available to suit the constraints of a site. These include green roofs, permeable paving, ponds, wetlands and shallow ditches called swales. The main purpose of sustainable drainage systems is to mimic the natural drainage conditions of a site before development. This is achieved by capturing water and allowing as much as possible to evaporate or soak into the ground close to where it originated. Surface water is then discharged from a site at a controlled rate that does not increase flood risk.

Delivery of strategic flooding solutions for Bath could provide clear opportunities to deliver benefits including creation and restoration of wetland habitat and improved access to the natural river corridor.

The Environment Agency (in partnership) is responsible for ensuring our main rivers reach good ecological condition by 2016 through the provisions of the Water Framework Directive (WFD). Within B&NES significant WFD issues include phosphate levels and barriers to migratory fish. Green infrastructure can contribute to achievement of WDF objectives and help deliver actions from Catchment Flood Management Plans (CFMP) and River Basin Management Plans (RBMP).



Water management priorities

- Strategic flood solutions for Bath to be designed to deliver clear green infrastructure benefits
- Need to work at the catchment scale with key partners on improvements for the Water Framework Directive and to deliver actions from the Catchment Flood Management Plans and River Basin Management Plans.
- Promote benefits through appropriate SUDS design





Green infrastructure and recreation & open spaces

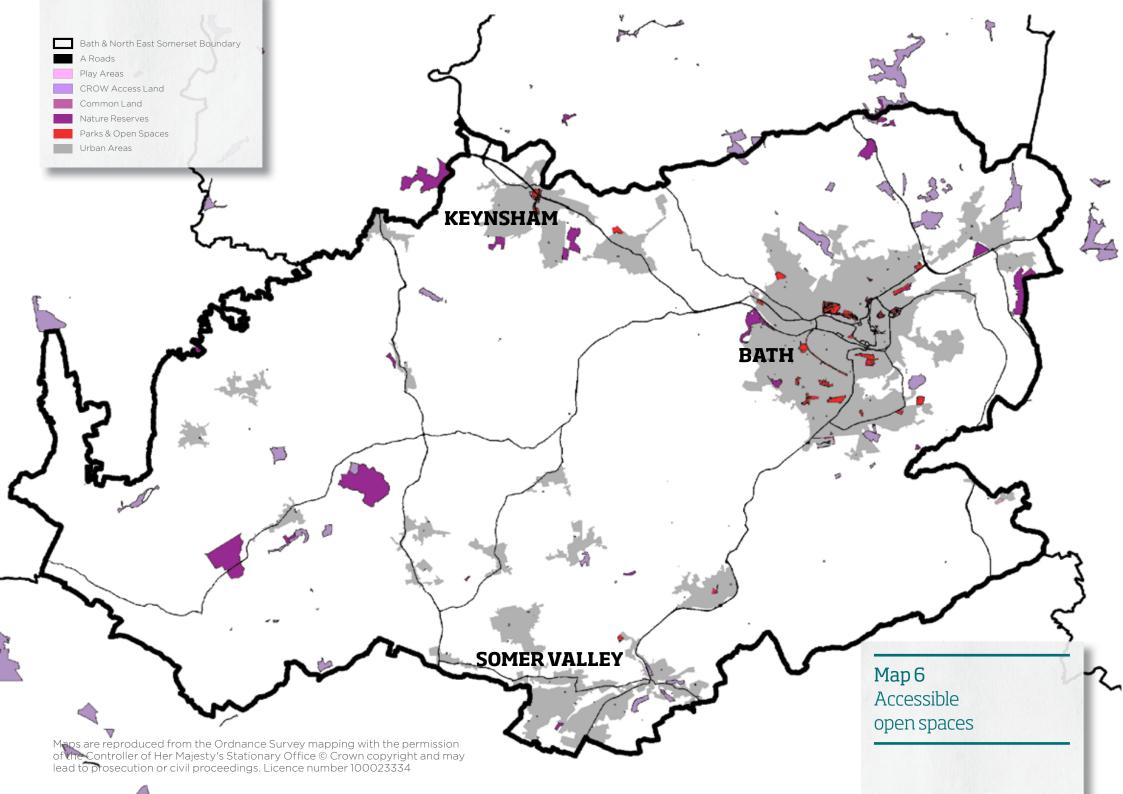
The strong positive links between our mental and physical health, and levels of contact with natural and green spaces are well documented.

Access to green spaces is associated with a decrease in health complaints such as blood pressure and cholesterol, improved mental health and reduced stress levels.

People living closer to green spaces are shown to be more physically active and less likely to be overweight or obese. Within B&NES the health cost of inactivity is calculated to be at least £2.8 million per year.

A planned approach to green infrastructure can contribute to the provision of well promoted, high quality, multi-purpose green spaces and increase the benefits that these provide for community health and wellbeing.





Recreation and open space assets

The Council manages a wide range of assets including 50 hectares of formal parkland, 200 hectares of public open space, sports pitches and highway verges. Included within this are parks, local nature reserves, recreation grounds and public open spaces, floral displays, allotments, trees, woodland and parks.

The Green Space Strategy (GSS) adopted in March 2007 contains local provision standards and identifies existing deficits in green space. These standards are viewed as minimum requirements and inform the Green Infrastructure Strategy until reviewed. There are localised shortages of natural space and to a lesser degree formal space across the district. The Council has an aspiration to create a new publicly accessible Town Park in Midsomer Norton.

to address the green space needs of the increased population up to 2012 and also planned growth to 2026 as included in the draft Core Strategy.

There is a need to project forward the GSS standards

The Council actively encourages the community to make best use of these green spaces through delivery of the Council's "Get Active" and "Play" services. It manages a large number of sports pitches. The land beyond the formal pitch and safety margins is managed as informal open space and offers opportunities to provide additional services such as biodiversity. Whilst the Council prioritises play provision for all children in the district, lottery funding was secured in 2007 to extend play services by targeting areas of deprivation.

The management of the Council's land estate provides opportunities to deliver green infrastructure benefits through review of management regimes for both formal and informal spaces, sports fields and highway verges. In a context of declining Council resources, opportunities need to be taken to explore alternative models for managing open spaces including increased active involvement of the community where appropriate.

Similar opportunities should also be taken with privately owned land with public access across the district, working with the key landowners including the National Trust, the Duchy of Cornwall, British Waterways Trust and major educational institutions.

Accessible open spaces are shown on MAP 6.

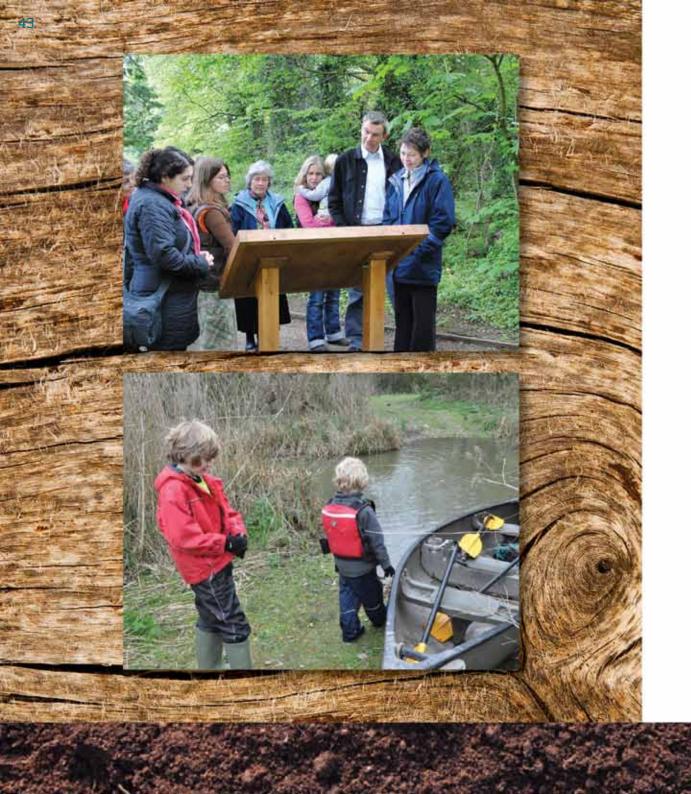


Recreation and open space priorities

- Update green spaces requirements to 2012 and project needs forward to 2026
- Review highway verge maintenance policy to secure biodiversity gain
- Review location of playing pitches to assess opportunities to reduce habitat fragmentation in key wildlife corridors
- Review existing management plans for green spaces to look at multifunctional opportunities including a focus on biodiversity enhancements
- Explore alternative models for managing open spaces to minimise overall costs to the Council
- Continue to target play provision in areas of deprivation
- Work with key landowners to increase benefits from publicly accessible land







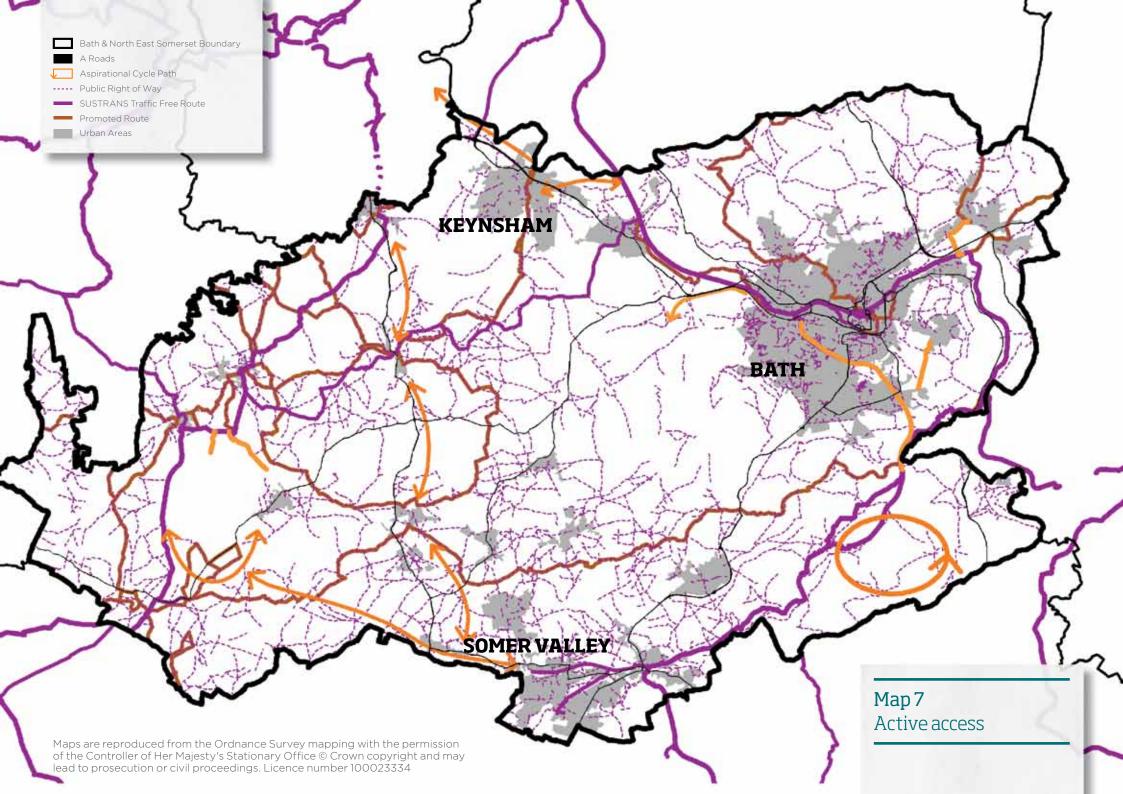
Green infrastructure and active access to the outdoors

There are many good reasons to get outside and explore - to get to know the local area, to have fun, but also to improve health, help the environment and support the local economy.

Access to the outdoors is fundamental to promoting healthier lifestyles. Improving recreational links particularly within urban areas and their surrounding landscapes will encourage greater access to natural spaces, support active lifestyles and address health inequalities.

Improving the green networks will also provide significant opportunities for green tourism income from leisure spend on accommodation, in pubs and local shops. Initial estimates suggest that the Two Tunnels greenway will attract one million journeys every year by both local people and visitors to Bath.







The Government's ambitious target to reduce carbon emissions by 80% by 2050 can only be achieved if a shift from car use is successful. The coordinated promotion and delivery of attractive walking and cycling options using green infrastructure assets will help to encourage this change locally.

Cycle England have reported that a 20% increase in cycling by 2015 could save the NHS £52m through reduced obesity, increased physical fitness and lower incidence of respiratory diseases. Encouraging cycling through natural spaces will provide additional mental health benefits.



Active access to the outdoors assets

The existing network of public rights of way across the district supplemented by a range of other paths and routes provides a wide range of opportunities to explore the outdoors in both urban and rural areas. The Rights of Way Improvement Plan (ROWIP) indicates that density of the network varies, being relatively high around Norton Radstock and generally quite low around Bath and the rural parishes north of Priston. A full network survey of public rights of way undertaken in 2009 provides a working database for improving coverage, connectivity and managing maintenance issues.

Whilst the Council does promote some parts of the network there are opportunities to encourage more active use of the network through more targeted promotion and improved signage particularly on the urban fringes.

There are a number of regional promoted routes including the Cotswold Way National Trail, Limestone Link and Bristol Bath Railway path, which can be followed in full or walked in small sections. Opportunities should be taken to add to and improve these promoted routes. Rights of Way Improvement Plan identified the potential for a greater variety of short routes that can be completed by users with different needs including circular routes around towns and villages.



The research also identified the need for high quality walking and cycling routes connecting housing to schools, shops, employment, recreation and sports facilities.

Key cycle routes include the Norton Radstock Greenway, the Five Arches Greenway and the National Cycle network routes 3, 4 and 24, including the new Two Tunnels route. The K&A Canal towpath provides a strategic green route eastward from Bath through to Reading.

Whilst B&NES is adequately served at network level by cycleways across the district and linking to neighbouring areas there are gaps in some parts of the area. Key opportunities for improvement include a link between the existing Norton Radstock Greenway and Farrington Gurney, a route around Chew Valley Lake, and links between Keynsham and Bristol and the Bristol Bath Railway Path. The disused railway line between Whitchurch and Clutton provides a further opportunity.

The second second

The priority for cycle routes is to provide routes primarily for transport to link rural communities with nearby centres. However, the rural network should also maximise the tourist potential where appropriate.

The Bristol Bath Railway path is a key multi user, cross boundary route connecting these two cities and villages between. A management plan is being progressed to achieve coordinated management and increase the benefits the Railway Path provides, including opportunities for improving links with both Keynsham and the River Avon Trail at Saltford and to improve biodiversity.

The Strategy seeks to encourage more use of these existing invaluable resources across the district and beyond, by improving the experience and making information more readily available.

The OutdoorsWest website

(www.outdoorswest.org.uk) is an existing resource that can be further developed to promote both footpath and cycling routes and has potential to deliver other targeted health benefits by promoting schemes such as Exercise on Prescription. By working with partners the website could become the hub for all information on where to go in the Outdoors in the area and support increased use of existing green infrastructure.

Existing active access routes are shown on MAP 7

Active access to the outdoors priorities

- Increase overall usage of existing green travel networks
- Provide and promote circular routes around towns and villages
- Develop "OutdoorsWest" as the portal for all access to the outdoors information
- Target physical improvements to routes that can also be promoted for local and visitor use
- Provide cycle routes linking rural communities with nearby centres
- Promote the rural networks for tourism
- Maximise management of existing and new cycleways for wildlife
- Manage the Bristol Bath Railway Path to provide a quality multifunctional green corridor for community and wildlife





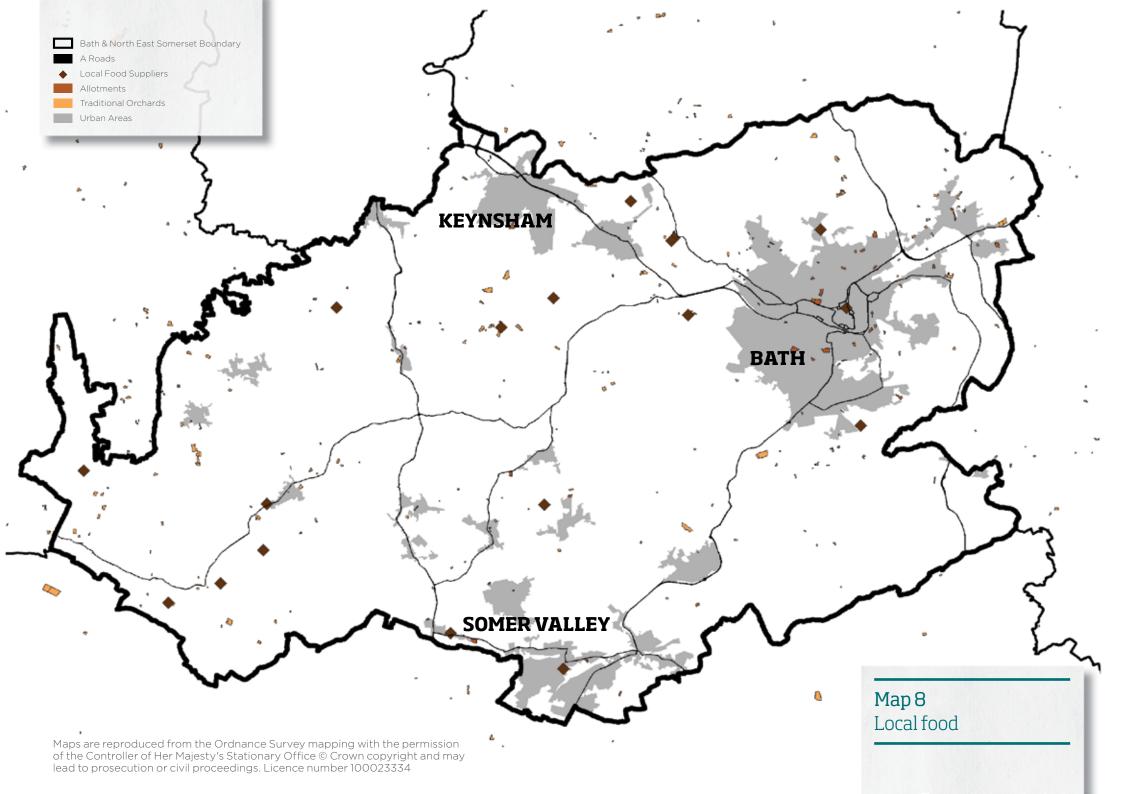
Green infrastructure and local food

Rising levels of obesity and other food-related health problems have created the need not only to provide greater access to fresh, healthy, affordable food, but to change how we relate to our food. Involvement in food production is a way to do this.

Within this very broad local food agenda, green infrastructure can provide opportunities to increase the space available to local communities to produce locally grown food, through more effective use of existing green spaces and corridors. In addition to increasing the quantity of food, the involvement in the growing process has wider benefits including opportunities for healthy activity, community involvement, education and socialisation.

Connecting local communities with these assets via footpaths and cycleways also encourages further reconnection with the local natural environment.





Local food assets

There are 42 allotment sites across the district and the Council is responsible for the 23 sites in Bath. Elsewhere allotments are managed by other local bodies, such as Parish Councils. Demand for allotments exceeds supply and the Council is preparing an Allotments Strategy to address this deficiency. This document recognises the importance of allotments as a leisure and recreational facility and to the health and wellbeing of communities, green spaces and wildlife.

Other exciting local initiatives that involve the community include Peasedown community farm, Broadlands orchard share and "Green Vision" which plants food on unused land.

Whilst beyond the remit of this Strategy to provide a comprehensive approach to local and healthy food, such an approach is needed if the area is to reap the economic and social benefits of its local food resources.

The main local food components of the district are shown on MAP 8

Local food priorities

- Increase the provision of allotments through delivery of the draft Allotments Strategy
- Review existing green spaces to look at multi-functional opportunities including space for growing food
- Provide access to growing space for residents in existing residential areas
- Design access to growing space into new developments
- Supporting "grow your own" schemes by making green space available







The local communities are connected through high quality networks of green spaces and corridors which provide attractive spaces for play, recreation, relaxation, reflection, education and growing food.



The quality and integrity of the exceptional local landscape and built heritage is valued, respected and enhanced.



Local people are proud of this green network and people of all ages use it regularly for healthy exercise and are benefiting from improved physical and mental health.



The local economy and its workers continue to benefit from the high quality natural and built environment. A growing sector of green tourism respects and makes use of the area's natural and historic assets



Wildlife is thriving within urban areas, along the natural corridors and throughout the open countryside and biodiversity is increasing.



A well connected, signed and promoted network of green travel routes is well used by the community and visitors, to travel throughout B&NES and into neighbouring areas.



The river and canal corridors are recognised and valued as significant green corridors through the district and beyond. The river Avon and canal corridor has achieved positive ecological potential and supports an increasing number of water related businesses.



Well-designed new developments respect and contribute positively to the natural environment and there are an increasing number of SUDS, including green roofs, ponds, swales and permeable paving.



Green infrastructure plays an important role in making the area resilient to climate change. Street trees and urban greening schemes assist in cooling urban areas and flood alleviation schemes within the River Avon catchment reduce flood risks.



More people are involved in community food groups, individual growing plots and allotments, successfully contributing to their own food needs with innovative production methods and models.



The stock of Council owned land is well used to fill gaps and deficiencies in the provision of accessible green space and to address habitat connectivity and a growing number of communities are involved in managing their local green spaces.



Local people are involved in monitoring wildlife, appreciate the importance of gardens in supporting urban ecology and are active custodians of a healthy and vibrant natural environment.



Delivering the Vision

Delivery of the strategy vision is a complex and challenging task and success will be dependent on coordinated, targeted activity and strong working relationships with many partners including the local community. Delivery will be achieved in a wide variety of ways and with different bodies taking the lead.

Strategy principles

A number of high level principles underpin how we need to approach the delivery of green infrastructure to be successful.

Green infrastructure and cultural shift

Put the value of nature at the heart of decision making, by working with decision makers, infrastructure delivery agents and the development sector, to increase awareness of the wider benefits that a healthy natural environment can provide.

Green infrastructure and partnership working

Work in partnership to achieve a coordinated, cross boundary and inter agency approach to delivery of green infrastructure across the district and beyond.

Green infrastructure and development

Green infrastructure should be central to the design of new developments, link well into the existing green infrastructure and contribute positively to its functionality.

Green infrastructure multifunctionality and connectivity

Increase the benefits that green infrastructure assets deliver for people and wildlife by increasing function and connectivity wherever possible and appropriate.

Green infrastructure and biodiversity

Green infrastructure should deliver habitat restoration, re-creation and biodiversity enhancements, and provide more opportunities for people to connect with nature wherever appropriate.







Who is responsible for making it happen?

The successful delivery of the strategy vision will be dependent on coordinated, targeted activity and strong working relationships with many partners including the local community. It requires cross boundary working, and multi-agency cooperation. Delivery can be achieved in a wide variety of ways and by different bodies taking the lead.

In principle, any individual, group or organisation that is responsible for green infrastructure, or benefits from it, has a possible role to play in its creation, protection, management or enhancement. This includes the Council, neighbouring local authorities, parish or town Councils, charitable trusts and the voluntary sector, local community groups, organisations and agencies responsible for green assets and individuals, businesses or organisations that own, manage or develop land.

The Council's role

The Council has a significant role to play in green infrastructure planning and delivery with its broad environmental, health/social and economic responsibilities. In addition to coordinating the development of the Strategy and initiating the action planning process the Council will champion green infrastructure and take the lead on a number of initiatives.

The Council will champion green infrastructure and make it happen by:

- Working with key partners and stakeholders to develop and deliver the action plan
- Taking the lead on a number of the emerging priority projects including, the green setting of Bath WHS, River Avon and canal and developing the OutdoorsWest website
- Securing a cultural change within the Council to put the value of nature at the heart of decision making
- Recognising green infrastructure as a key delivery mechanism for the Council's visions and values.
- Providing an accessible suite of mapping data and guidance
- Embedding green infrastructure principles into the planning policy and development management processes
- Reviewing green infrastructure opportunities of Council owned land

Tools for delivery

The strategy provides a variety of tools and mechanisms to support delivery:

- Strategy principles providing fundamental guidance on how green infrastructure should be delivered
- Delivery aims and objectives setting out what needs to be done to deliver the green infrastructure benefits and providing a framework for the action plan
- Mapping solutions district wide issues and urban vision maps to show what we could and should seek to achieve, and what data we need to make readily available.
- Priority process projects to establish effective processes and procedures to deliver green infrastructure
- Emerging geographical projects to act as catalysts to inspire and guide development of the action plan





Healthy lifestyles and thriving communities

Support healthy lifestyles by encouraging more people to use green infrastructure

- Improve general awareness of, accessibility to and enjoyment of green infrastructure
- Target specific interventions and initiatives on areas with lowest life expectancy, the young and the elderly and users with reduced mobility
- Develop "OutdoorsWest" as the information portal for all access to the outdoors information.

Improve the quality, function and management of Council owned green spaces and other accessible green spaces by establishing a culture and processes for long term management

- Review and enhance the quality and function of Council owned green spaces
- Explore alternative models for managing open spaces to minimise overall costs to the Council
- Work with key landowners to increase the benefits of publicly accessible land

Encourage more people to connect with nature and foster sense of place

- Provide accessible mapping data and guidance for neighbourhood plans
- Provide opportunities for people to explore and engage with nature
- Involve local communities in identifying what they value in their local landscapes
- Engage local people in active care of the natural environment



Active access to the outdoors

Improve the network of green travel routes

- Improve quality, management, signing and promotion of the network
- Provide and promote circular routes around towns and villages
- Target physical improvements to routes that can also be promoted for local and visitor use
- Provide cycle routes linking rural communities with nearby centres
- Expand the bridleway network
- Manage existing and new cycleways to benefit people and wildlife
- Manage the Bristol Bath Railway path to provide a quality, cross boundary multifunctional green corridor



Landscape character and built heritage

Respect and enhance the local landscape

- Design and deliver high quality green infrastructure to protect and enhance local landscape character
- Work with the AONB partnerships and other partners to embed green infrastructure principles and priorities in landscape management and delivery plans
- Design green infrastructure to safeguard and enhance significant views and provide access to important view points

Safeguard and enhance access to the local built heritage

- Safeguard and enhance access to important view points and historic sites
- Protect and where possible preserve belowground archaeology in situ through the sensitive placement of new green infrastructure assets
- Secure a multifunctional approach to management of the Bath World Heritage Site green setting
- Explore opportunities for a multifunctional greenway focused on the Wansdyke.

Biodiversity

Maintain and create robust ecological networks by reducing fragmentation and delivering habitat restoration, re-creation and biodiversity enhancements

- New green infrastructure should help deliver habitat restoration targets, enhance biodiversity and improve habitat connectivity
- New developments should deliver net biodiversity gains through well planned green infrastructure and beneficial design features in new or restored buildings
- Identify the full potential of Council owned land for delivering biodiversity benefits
- Achieve robust ecological networks, prioritising links between SNAs, SACs, the Cotswolds and the Mendip Hills and the river and canal corridors
- Explore ways to improve urban ecology
- Work with partners to support on-going and new landscape scale projects
- Develop a robust biodiversity monitoring system to tie in with national targets

Secure the multiple benefits that trees and woodlands can provide

- Develop a tree and woodland strategy
- Improve access to woodlands within and on edges of settlements through good signage, interpretation and promotion
- Prioritise new woodland and street tree planting within and close to settlements
- Protect ancient and notable trees and woodlands through the use of Tree
 Preservation Orders and by encouraging appropriate management
- Ensure that trees are included in design requirements for new developments
- Encourage community groups to address trees and woodland in neighbourhood plans
- Explore the role of wood fuel as a renewable energy source
- Bring neglected orchards back into management and create new ones





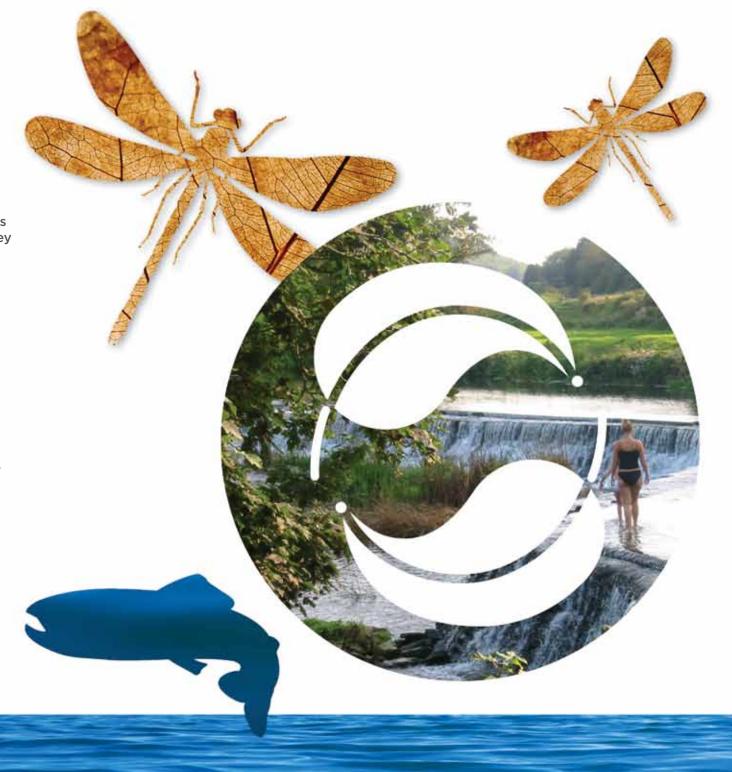
Healthy ecosystems and water management

Recognise the importance of healthy ecosystems and protect and enhance the natural services they provide

- Work with key partners to agree an ecosystem position statement and high level management plan for the district
- Work with partners to deliver landscape scale habitat restoration
- Prioritise green solutions for development infrastructure
- Design strategic flood solutions for Bath and elsewhere in the district that deliver green infrastructure benefits

Achieve more sustainable management of water resources, flood mitigation and flood risk

- Implement the Local Flood Risk Management Strategy
- Prioritise and promote the use of sustainable drainage systems.
- Support delivery of River Basin Management Plans and Catchment Flood Management Plans including achieving "good" ecological status for the River Avon



Climate Change solutions

Provide natural solutions to help tackle the impacts of climate change

- Use green infrastructure to deliver sustainable water management
- Use trees, including street trees and green spaces to reduce urban heating
- Promote land uses that absorb carbon dioxide
- Improve green travel options to reduce motorised transport
- Increase opportunities for renewable energy production including biomass
- Prioritise projects and interventions which help to address habitat fragmentation
- Increase opportunities for local food production





Contribute to a vibrant local economy

- Increase opportunities for natural tourism and green industries based on the natural environment
- Create attractive environments that attract inward investment
- Ensure new development respects and enhances existing and creates new green infrastructure
- Enhance and promote access to local and wider landscapes for recreation.



Mapping

Mapping is a key tool for delivery and planning of green infrastructure. It is fundamental to defining and presenting the spatial structure of existing assets and for showing aspirations and opportunities.

Maps showing the distribution of specific assets are included in Section 2 of the strategy (pages 26-48).

These are derived from the mapped data sets summarised in Table 1. These assets have been explored and reviewed to compile an illustrative district wide "issues and opportunities" map (MAP 9). This illustrates what benefits we could and should seek to achieve. The next step is to drill down and develop more detailed vision maps for the main urban areas of Keynsham, Somer Valley and Bath. These will be developed and tested through the Placemaking Plan process.

The availability of good mapping tools and geographical information systems (GIS) means that digital mapping can be a standard working and communication tool for green infrastructure.

Mapping tools enable green infrastructure to be readily viewed at all different scales. This is essential as it needs to be considered and planned at all scales and many parties concerned with spatial planning and management of land need easy access to this information. This is important for a whole range of purposes including: forward planning; development management; water catchment planning; open space plans; community plans; neighbourhood plans and for developers and their consultants.

To this end the strategy sets out and has used the initial suite of map-able assets (Table 1). These data will be made available to view on the Council's internal mapping systems in the first instance and ultimately to external partners through on line services or similar. Green infrastructure is not fixed in time and these data sets can be updated as new data becomes available and improvements made to the network. The mapping tool will seek to ensure that asset and networks data are available for review and interrogation and can be readily managed and updated.

The success of the strategy will be highly dependent on the provision of easy access to this data, together with clear guidance on its use.

Proposed delivery priorities:

- Provide digital and on-line access to a managed GIS database of green infrastructure assets and drivers
- Provide accessible guidance on the use of the green infrastructure mapping data



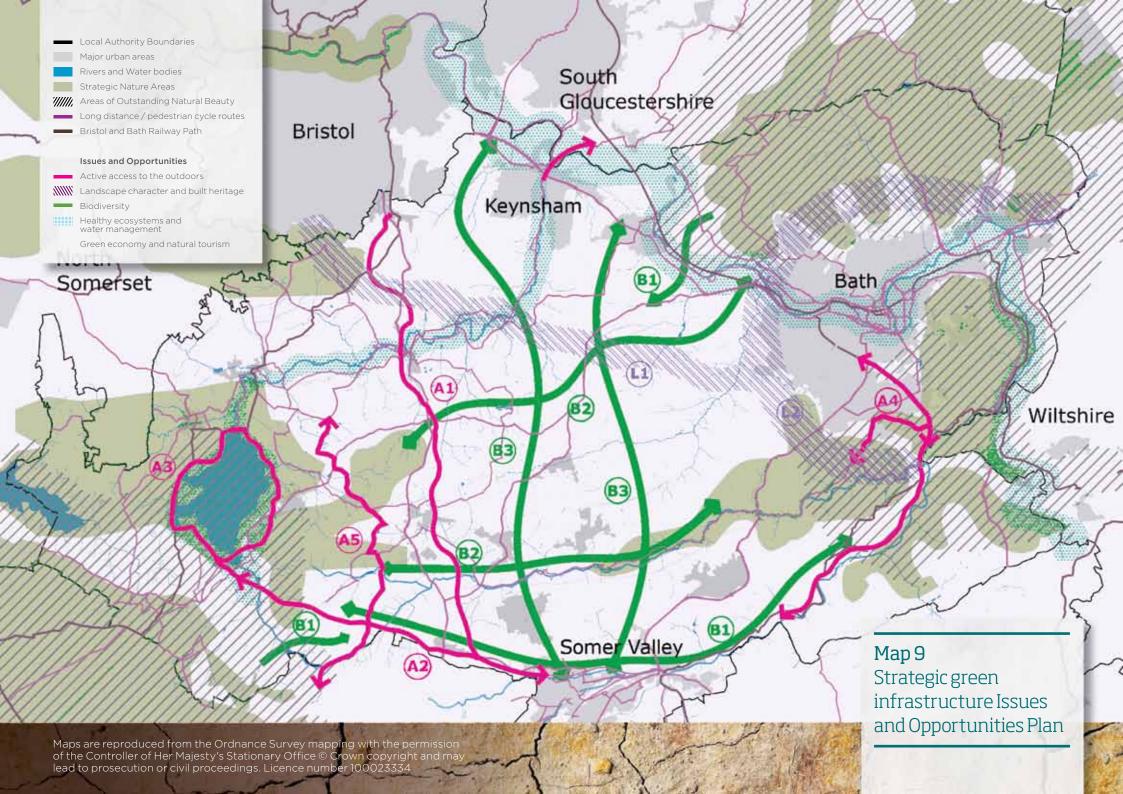
Green Infrastructure Issues and Opportunities in Bath and North East Somerset

connections from existing long distance walking and cycling routes to key green infrastructure assets and places of interest could also be improved throughout the District. A1 - North-south link along route of dismantled railway A2 - Extension of existing link west to Chew Valley Lake and beyond A3 - Proposed circular route around Chew Valley Lake (subject to ecological compatibility) A4 - Two Tunnels Greenway (existing project underway) A5 - Enhance access on existing footpaths to improve north - south links Landscape character and built heritage Improvements and enhancements to the setting of Bath and the WHS (e.g. woodland creation / extension, natural green space) could be sought to ensure the	sets	description	main benefit	
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and built heritage woodland creation / extension, natural green space) could be sought to ensure the	tive access to the outdoors	connections from existing long distance walking and cycling routes to key green infrastructure assets and places of interest could also be improved throughout the District. A1 - North-south link along route of dismantled railway A2 - Extension of existing link west to Chew Valley Lake and beyond A3 - Proposed circular route around Chew Valley Lake (subject to ecological compatibility) A4 - Two Tunnels Greenway (existing project underway)		3
special qualities of the city and the surrounding landscape are retained (L2). There are opportunities to provide an interpreted green corridor based around the remains of the Wansdyke (L3). L1-Proposed interpretation route along the Wansdyke	-	woodland creation / extension, natural green space) could be sought to ensure the special qualities of the city and the surrounding landscape are retained (L2). There are opportunities to provide an interpreted green corridor based around the remain		

Green Infrastructure Issues and Opportunities in Bath and North East Somerset

assets	description	main benefit
Biodiversity	The majority of large areas with ecological designations and greenspace lie around the fringes of the District; opportunities to create space for and allow for the movement of biodiversity through the middle of the District should be sought including:	C(3)
	B1 - Enhanced links between the Cotswolds and Mendips AONBs into the District	
	B2 - The designation of two areas to the west and east of the District as Strategic Nature Areas provides an opportunity for the District to identify projects which link up and take full advantage of the work being carried out within the SNAs.	
	B3 - There are a lack of corridors which facilitate the movement of wildlife between the north and south of the District, and opportunities should be sought to improve the permeability of the landscape to wildlife to the north and south of the District.	
	The importance of the area for Horseshoe bats is notable and measures to safeguard foraging habitats and flight networks for horseshoe bats should be prioritised.	
Healthy ecosystems and water management	The River Avon and Kennet Canal Corridor along with the River Chew provide significant drainage features for the area and opportunities for sustainable management of water resources particularly to the north of Keynsham and along the Bath River Corridor should be sought.	
Climate Change Solutions	Opportunities for mitigating and adapting to climate change should be sought throughout the District. Using urban greening to help design out more extreme weather conditions present significant opportunities through sustainable urban drainage systems and providing shading and urban cooling.	
Green Economy and Natural Tourism	A high quality environment supported by strong Green Infrastructure help to attract businesses as well as people to live and work in the area. Areas in the District that could benefit from further investment in Green Infrastructure in order to support the local economy are:	V£
	Keynsham town centre public realm improvements (existing project underway) and urban greening, linking to existing greenspace and habitats to increase the attractiveness of Keynsham to businesses and employees.	
	Midsomer Norton Green links, link existing greenspaces and habitats including proposed Town Park project and dismantled railway corridors.	





Priority process projects

Successful delivery will also require effective working practices and procedures, and the development of a number of crosscutting tools has been identified as key. These need to be put in place at an early stage.

The key areas that need to be addressed are summarised below. More detailed project outlines are contained in APPENDIX 1 and these will be worked up as priorities in the action plan.

Cultural change project - The concepts of green infrastructure are not generally embedded in the Council processes and consequently major opportunities for delivering benefits are being missed. There is a critical need to provide targeted training and guidance to build capacity across Council staff and members and to embed green infrastructure principles into processes, to put the natural environment at heart of the Council's decision making.

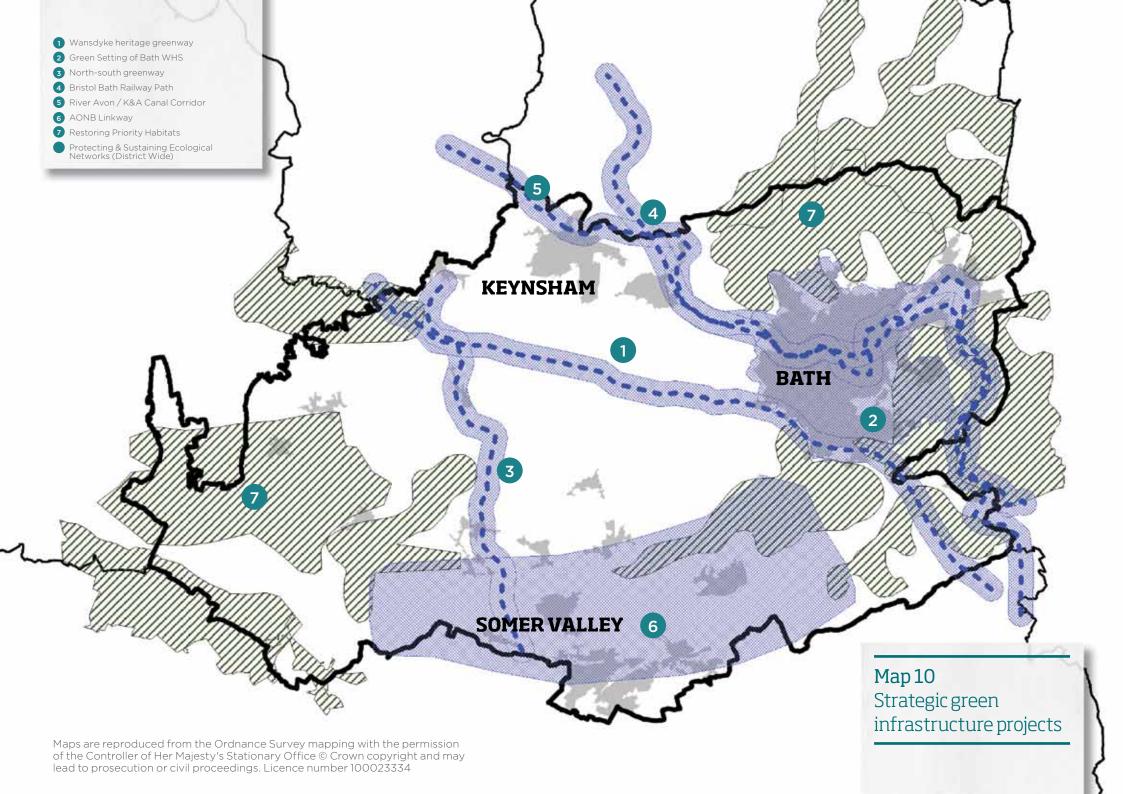
Accessible mapping project - Effective delivery will be highly dependent on a wide range of data being made available to support all parties involved in spatial planning and the management of land. The purpose of this project is to provide easy access to a suite of mapped green infrastructure data together with clear guidance for use by the Council and its partners.

ent management project - Significant es will occur to deliver green alongside growth through new ents across the district. The purpose of

Development management project - Significant opportunities will occur to deliver green infrastructure alongside growth through new developments across the district. The purpose of this project is to work collaboratively with the development sector to provide tailor made tools to support the development management process, to ensure that green infrastructure principles are embedded in development proposals of all scales. An illustrative green infrastructure checklist and guidancewill be developed and tested through the Placemaking Plan process. The purpose of the Placemaking Plan is to add detail to the Core Strategy by providing development management policies and clarifying the Council's expectations for development.

Access to outdoors information project - To support healthy lifestyles we need to encourage more people to use green infrastructure. Increased usage can be achieved by making information about "where to go", "what to see" and "how to get there" much more readily available. Whilst much paper and online information exists, it is scattered, of varying quality and sometimes out of date. The aim of this project is to work with partners to expand the existing public rights of way website 'OutdoorsWest', to include information on green infrastructure sites, services other partners deliver and to promote it widely as a "one stop shop" for access to the outdoors information.





Emerging geographical projects

A number of priority geographical projects that can deliver across a range of green infrastructure benefits have also emerged during the strategy development process. It is intended that these will be worked up and validated with partners as part of the action plan. Draft project outlines which set out a draft vision, list potential partners and possible delivery options are included in APPENDIX 1.

The following priority projects have been identified. Where applicable these are shown on MAP x

- Wansdyke Heritage Greenway an interpreted green corridor based around the remains of the Wansdyke
- 2. Green setting of Bath WHS to develop and deliver a joint management plan designed to protect and sustain the green setting and provide appropriate access within it for the local community and tourists.
- 3.North South Greenway a green corridor linking Whitchurch in the North, southwards to the Somer valley, largely following the line of the dismantled railway line.
- 4. **Bristol Bath Railway Path** coordinate management of the Railway Path to ensure it continues to provide a quality, multifunctional green corridor for both the community and wildlife.

- 5. River Avon and Canal to provide a framework to deliver the full green infrastructure benefits of this significant corridor
- 6.**AONB Linkway** to strengthen the habitat and access connectivity between the Mendip Hills and southern part of the Cotswolds AONB.
- 7. **Restoring priority habitats** to increase and then sustain coverage of priority habitat across the district, with a particular focus within Strategic Nature Areas (SNAs).
- 8. Protecting and sustaining ecological networks to develop an approach to identify and protect

ecological networks to support land-use planning and management decisions, including a working network map based on strategic nature areas, designated sites, wildlife corridors, priority habitats and other key features.



Funding and delivery mechanisms

The green infrastructure approach provides opportunities to add value to existing programmes, by highlighting more sustainable solutions, making optimum use of existing budgets and resources to achieve multifunctional outcomes. Much can be achieved with existing resources including invaluable volunteer efforts. Evidence has shown that some sustainable solutions can be less expensive than an engineered approach. Some seed funding may be required to explore and pilot new approaches, for example to managing land that could ultimately produce savings.

Successful delivery also requires the principles and priorities to be embedded into a wide variety of Council agendas and strategies including the Green Spaces Strategy review, ROWIP, Allotments Strategy and Active Leisure. Similarly with partner initiatives and existing work programmes including the West of England Nature Partnership, management plans for the Mendip Hills and Cotswolds AONBs and the Avon Frome Partnership, Cotswolds NIAs.

Additional resources will be sought through a number of key mechanisms, including developer contributions, external funding and grant schemes, and community resources.

Development management

Significant opportunities will occur to deliver green infrastructure through developer contributions including planning obligations (s.106 agreement) and Community Infrastructure Levy (CIL). CIL provides a funding mechanism to support the development of the district in line with the Council's crucial and difficult to secure. Embedding the green draft Core Strategy. Contributions should help fund the infrastructure that supports development and the creation of sustainable communities and therefore provides clear opportunities to fund green infrastructure.

Specific development management policies to deliver Core Strategy green infrastructure aspirations will be included in the Placemaking Plan and supported by a green infrastructure protocol to require developers to address green infrastructure at the very start of project design.

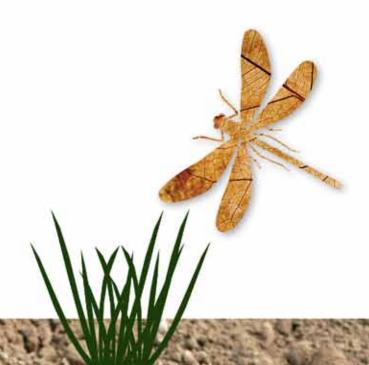
Neighbourhood planning

Local communities in Bath, Parish and Town Councils will have access to a meaningful proportion of CIL funding to spend on improvements within their local neighbourhoods. As referred to in the Neighbourhood Planning protocol - My Neighbourhood 2012, communities will have access to information about assets within their areas and this will help them to identify key local projects when they prepare neighbourhood plans.

External funding and grant schemes

The strategy provides the supporting framework to access funding sources external to the Council including health. Water Framework Directive funds and a platform for bidding for Heritage Lottery funds or similar. Revenue funding is often the most infrastructure principles and priorities into plans and strategies will give confidence to funding bodies on the strategic nature of the proposed projects.

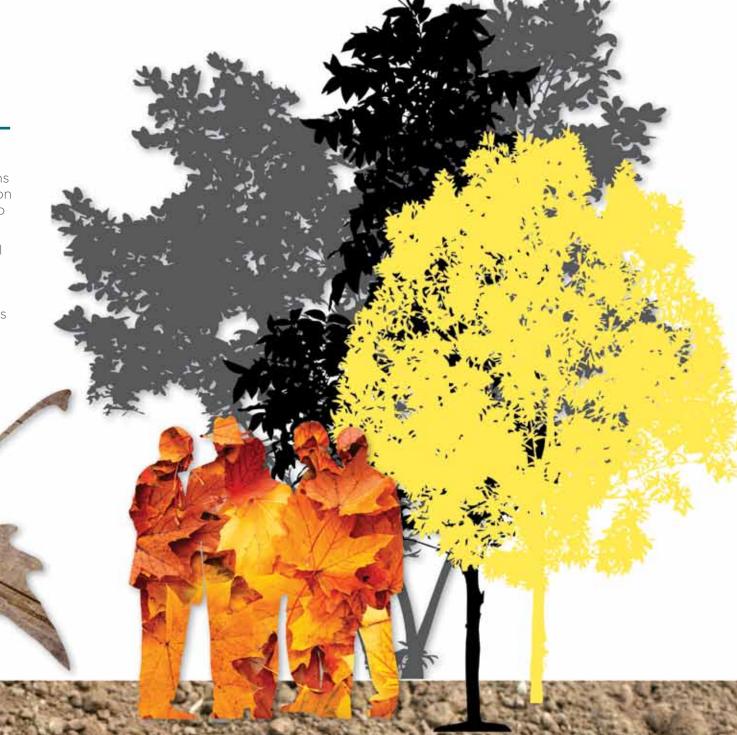
The strategy also provides an agreed framework to influence the targeting of existing funding streams such as Agri-environment and woodland grants.



Action planning process

A wide variety of individuals, groups and organisations, in addition to the Council have an important delivery role to play. Those organisations that have shaped the strategy through participation in the stakeholder workshops and in responding to the consultation draft are listed in APPENDIX 5.

Following approval of the Strategy the Council will continue to work with these partners to validate and programme the delivery priorities and emerging strategic projects and tasks. A rolling action plan will be monitored and updated to focus on delivery as and when resources become available. A first priority will be to agree and put in place an appropriate governance structure to oversee development of the action plan and to monitor progress.



Appendices and Glossary

Appendix 1

Project profiles

process projects and emerging geographical projects

Appendix 2

Policy CP7:

Green infrastructure

Appendix 3

List of related strategies

Appendix 4

Partners involved in shaping the strategy

Appendix 5

Glossary of terms

Cultural Change

Project summary

Whilst awareness of the value of the natural environment and the benefits of green infrastructure are well developed in some services the concepts of green infrastructure are not generally embedded in the Council processes. Consequently major opportunities arising from an integrated approach to delivery and the resulting added benefits are being missed.

The merit of the green infrastructure approach is that it provides opportunities to add value to existing programmes, by highlighting more sustainable solutions, making optimum use of existing budgets and resources to achieve multifunctional outcomes. Evidence has shown that some sustainable solutions can be less expensive than an engineered approach.

The aim of this project is therefore to provide a practical programme of targeted training/ workshops/quidance to build green infrastructure capacity of Council staff and members, to put green infrastructure at heart of Council processes and decision making.

Activities might include:

- Green infrastructure awareness/capacity building workshops - based around examples of local good practice for Council decision makers
- Guidance to achieve integration of Green infrastructure planning across key Council functions and delivery mechanisms. Guidance for development and project management including major projects, Development management and other delivery projects such as new cycle routes

- Service specific discussions to review existing land management processes. For example reviewing highway verge cutting regimes and open space management plans to increase biodiversity connectivity and quality
- Review project initiation processes to ensure opportunities are considered at the start of project development
- Budget integration e.g. using Local Sustainable Transport Fund (LSTF)
- to deliver healthy lifestyle outputs, health budgets outside B&NES area) for targeted projects such as walking for health
- Seminars for front facing staff (one stop shop, Tourist Information Centres, Libraries) to increase usage of existing green infrastructure by promoting Outdoors West information portal
- Embed green infrastructure principles and outcomes into related Council documents and strategies, when reviewed, such as Environmenta Sustainability Partnership strategy, Rights of Way Improvement Plan (ROWIP). Green Spaces and Active Leisure Strategies. Also into Partners strategies and work programmes such as Cotswolds and Mendips AONB Management Plans.

Proiect drivers

Achieving culture change within the Council underpins the delivery of the whole strategy

Current status

Programme of activity to be developed as a priority in the delivery plan process

Delivery options

Existing staff resource supported by external stakeholder specialists and facilitation

Potential partners

Stakeholders (to share good practice within and

Natural England, Local Nature Partnership







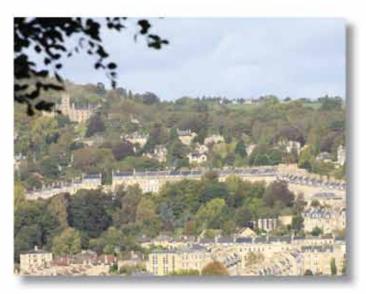












Accessible Mapping Project

Project summary

This project is concerned with providing all those with a role in planning and land management decisions access to straight forward and practicable green infrastructure asset data base. The ambition is to provide a simple practical tool that enables all decision makers to place green infrastructure at the heart of planning, allowing, it to be easily considered and monitored.

Project drivers

Requirement to put green infrastructure at the heart of decision making

Current status

Most of the key assets of importance locally are digitally mapped and have been used in the preparation of the strategy.

The challenge is to assemble a simple IT platform / process that would make the data appear clearly as asset data and to make this readily available and easy to use for all involved in land use planning and management.

Delivery options

Use of existing GIS systems

Potential partners

Bristol Regional Environment Record Centre (BRERC); Bath Spa University; Bath University

















Development management Project

Project summary

The concept of green infrastructure is firmly supported through national policy and its wide ranging benefits well evidenced. Despite this in practice the natural environment is still undervalued and at worst viewed as a constraint on development. Significant opportunities will occur to consider and deliver green infrastructure opportunities to achieve a high standard of "quality of place" in new developments across B&NES.

The purpose of this project is to work collaboratively with the development sector to provide tailor made tools to support the Development Management process, to ensure that green infrastructure principles are embedded in development proposals of all scales. Resulting guidance and tools will be integrated into the Placemaking Development Plan Document (DPD). The purpose of the Placemaking DPD is to add detail to the Core strategy by providing development management policies and clarifying the Council's expectations for development. The DPD will include a specific green infrastructure Development Management policy to expand on Core Strategy policy C7.

Project drivers

Sustainable communities Sustainable growth Healthy Economy

Current status

A development management tool is being developed, this will provides the starting point for consultation and subsequent inclusion in the Place Making DPD.

Delivery options

Place Making DPD

Opportunities will occur through planning obligations (S106) and the Community Infrastructure levy (CIL) to deliver green infrastructure interventions.

Embed in the on-going Local Enterprise Partnership planning toolkit and validation checklist review

Potential partners

Development sector, Royal Institute for Chartered Surveyors (RICS), University of West of England (UWE), Urban Regeneration Panel, neighbouring Local Authorities



















Access to the outdoors information Project

Project summary

There are many good reasons to get outside and explore, to get to know your local area, to have fun, but also to improve health, help the environment and help the economy in your local area.

Our local communities and visitors already benefit from this area's outstanding natural environment and this strategy seeks to encourage more use of this invaluable resource. Increased usage will be achieved by maximising the experience of existing green infrastructure through making information about "where to go", "what to see" and "how to get there" more readily available.

Whilst much paper and online information exists, it is scattered, of varying quality and sometimes out of date.

The aim of this project is therefore to work with partners to expand the existing public rights of way website 'OutdoorsWest' by adding information about green infrastructure. Development of the website could include:

- Information about sites such as local nature. reserves, accessible woodlands, nature walks, as well as information on nature for education and interest.
- Targeting of specific groups, such as children, young people and the elderly or particular localities, including carrying out targeted marketing and promotion of events including conservation activities and health walks.

- Promotion of OutdoorsWest in libraries, tourist information, Council 'one stop shops' and through schools.
- Exploring opportunities to promote OutdoorsWest through health related outlets such as local doctors surgeries

Project drivers

Increasing number of people using green infrastructure

Health and wellbeing

Green tourism

Climate change

Learning and education

Current status

OutdoorsWest is an existing public rights of way web based resource shared with South Gloucestershire and Bristol City Council, showing mapping of public rights of way and downloadable routes. The website can be expanded to include information on green infrastructure sites and the services partners deliver and promoted as a one stop shop for information.

Delivery options

Rights of Way Improvement Plan 2007 (ROWIP),

Local Transport Plan

Local Sustainable Transport Fund

Health & Wellbeing Board

Volunteers through Joint Local Access Forum (JLAF)

Potential partners

Neighbouring Local Authorities, Parish Councils, Local Nature Partnership (LNP), Cotswolds and Mendips AONBs, Tourism interests, Health and Wellbeing Board, Better by Bike, JLAF and Outdoors Access organisations (Ramblers, British Horse Society) Sustrans

















Wansdyke Heritage Greenway

Project summary

The West Wansdyke is a large linear earthwork which runs for about 12km from south of Bristol in the west to the south of Bath in the east. Existing evidence suggests that it was constructed between management issues along its length which include the end of the Roman rule in Britain and the early middle ages (c.410 to c.800 AD). It is believed to be a frontier defence and boundary marker intended to prevent incursions into Wessex from Mercia to the north but there remains much potential for greater understanding.

Some sections of the West Wansdyke are designated as Scheduled Ancient Monuments and deemed to be of national significance. Despite this status and level of protection it seems to be an undervalued and unappreciated treasure in our local landscape. There is currently no single body responsible for its protection and promotion. As a result many sections are in a state of decline either through simple neglect or accidental damage, probably reflecting the lack of awareness and appreciation of this historic asset. This project is about turning this around, helping to protect and enhance the Wansdyke whilst providing new and exciting opportunities for people to understand and enjoy local living history.

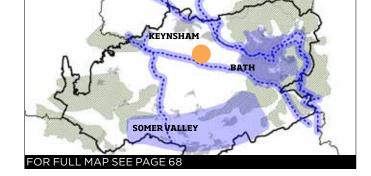
The first stage is concerned with the critical issue of protecting and interpreting those sections of the Wansdyke that remain. An archaeological management plan is needed. Then we would look at the feasibility of developing a heritage trail or series of circular routes targeting key visible parts of the monument to provide opportunities for people to access the countryside and learn more about this feature.

Opportunities to improve habitat connectivity along the greenway will also be explored and developed.

Most sections are in various different private ownerships and there are a number of damage from scrub & tree growth, anti-social behaviour, arable cultivation, unauthorised works. and development pressure. Due to these factors. some of the sections are on the national Heritage at outdoors Risk register which makes them a priority for action. English Heritage proposes to fund an Archaeological Management Plan to explore solutions to the various issues and to recommend opportunities for improved management. This plan would provide the baseline data for feeding into the monument is being prepared by English Heritage. wider strategic project.

From its eastern end a well preserved section of Roman road runs eastwards joining up with East Wansdyke near Calne in Wiltshire. This continues eastwards for about a further 20km until it reaches Savernake Forest just south of Marlborough. In total the Wansdyke as a whole covers approximately 72km. There are opportunities to improve access to the countryside from both Bath and Bristol. A long term aim could be to link with the East Wansdyke in Wiltshire which is already a wellknown and popular walking route.

The project vision is to explore the feasibility of a promoted and interpreted heritage trail based around the scheduled monument, accessible by cycle/walking from Bristol and Wiltshire and the local communities and villages between. Opportunities also exist to manage and enhance the chain of habitats along its length and to promote



the greenway as a sub-regional recreation route with links to local accommodation, pubs and cafes.

Project drivers

Protection and interpretation of the Wansdyke

Improving biodiversity connectivity

Improving and promoting active access to the

Cross boundary linkages

Current status

A draft management plan for the scheduled

Delivery options

A multi-functional approach could attract significant external funding such as Heritage Lottery Funding supported by matched funding from English Heritage for management of the ancient monument and in kind funding from volunteers.

Potential partners

English Heritage, the Council, local landowners and businesses, Bristol City Council, Wiltshire Council, Parish Councils, Avon Wildlife Trust, local conservation groups

















Green setting of Bath World Heritage Site

Project outline

The contribution that the undeveloped landscape surrounding and within Bath has made to the development and character of the city is one of the key influences leading to the inscription of the complete city as a World Heritage Site (WHS). This landscape helps to make the city the beautiful and cherished place it is and historically is responsible for shaping the city we now enjoy and strive to protect. It is also the reason the City enjoys rich thriving wildlife.

However, despite its intrinsic importance to the City, there is currently no joined up plan or process to manage and enhance these important green assets. Whilst the planning system guards against damaging development, it does not pro-actively instigate positive measures such as farm land stewardship or tree planting. There is also no vision or plan to engage people in the care and enjoyment of these assets or to safeguard the wildlife of the city.

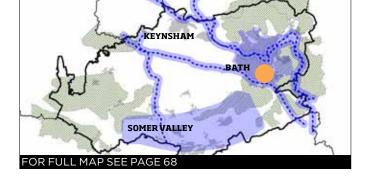
The green landscape and all it brings to the City is therefore considered to be vulnerable. This vulnerability stems from unsympathetic change, the rigors of climate change, as well as change through simple neglect. This project would address these issues through the development and implementation of a strategic multifunctional management and interpretation plan for the green setting of Bath.

The project would identify current land ownerships and management provision, would set out and agree the most critical issues affecting the vulnerability of the setting and then propose appropriate measures to address these issues.

In terms of biodiversity the green fingers through Bath and the woodland and meadows surrounding the city provide important habitat for a diverse range of wildlife. They provide foraging areas and flight corridors for many species of bat, including those of international conservation importance. The river corridor supports ofters and the heart of the city supports a breeding pair of Peregrine falcons. Much of this wildlife resource would be extremely vulnerable to the decline of the city's green setting.

Another key aim is to promote the green setting of the World Heritage Site to the public through the development of walking and cycle routes taking in important aspects of the setting. A circular walking route that follows the perimeter of the City of Bath, providing views across the city and into the countryside could complement the success of the extremely popular Bath Skyline Walk. The route could link radial public transport services and include links to walking routes into the city. Promoted to residents and visitors to the city, it can provide a resource for education, health and tourism, in particular providing an attraction to extend tourist stays in the city. Consideration should also be given to opportunities to promote a variety (length and difficulty) of circular cycle routes from the city.

The aim of this project is to future proof the green setting of Bath through collaborative working, having a joint management plan designed to protect and sustain the green setting and provide/ promote appropriate access within it for the local community and tourists.



Project drivers

Protect and maintain the green setting of Bath WHS

Secure future of variety of wildlife including European protected species

Improve access to the outdoors for residents and visitors

Current status

The need to conserve and manage the WHS setting is identified in the WHS Management Plan and the WHS Setting SPD. The potential to progress this as a multi-functional project have yet to be explored.

Delivery options

Heritage Lottery Fund Landscape Partnership programme, World Heritage Site management Plan, World Heritage Site setting SPD, Local Sustainable Transport Fund (LSTF), Woodland grants (FC) and Land management

Potential partners

WHS Steering group, Cotswolds AONB, National Trust and other major landowners, Forestry Commission, Forest of Avon Trust, Woodland Trust, Avon Wildlife Trust, British Waterways and Canal Trust

















North South Greenway

Project summary

This is a potential green corridor linking Whitchurch in the North, travelling southwards to the east of Clutton and on to Farrington Gurney and Somer valley, largely following the line of the dismantled railway line. Parts of the railway line are designated as Sites of Nature Conservation Interest with further sites of wildlife interest nearby. The line from Templecloud north to Chelwood is in Council ownership.

Further development and promotion of this corridor as a multipurpose Greenway could realise opportunities for:

- Improved access and interpretation of the industrial heritage around Pensford including the viaduct
- · Off road walking and cycling route based around the line of the dismantled railway
- Habitat restoration and enhancement
- Provision of north south ecological link

This north south corridor is an obvious gap in the districts green travel network and provides opportunities to link up with the main east west corridors and promoted green travel routes across the district and beyond including the Monarchs Way, Forest of Avon Path, Limestone Link and national cycle route N3 and the two Tunnels route into Bath. It would also provide a green route from the edge of Bristol through to Somer Valley and beyond into Somerset.

The vision for this project is to provide a key component of the districts ecological network, providing a north south greenway, to address a strategic north south gap in the green travel network and provide opportunities for access and interpretation of the local mining heritage and wildlife and green tourism.

Project drivers

Improve green travel network

Improve biodiversity connectivity

Access to and interpretation of industrial heritage

Cross boundary links

Current status

The potential/opportunities to explore options for developing this north south Greenway and achieving added value by progressing it as a multifunctional green infrastructure project will be explored through the delivery plan process.

Delivery options

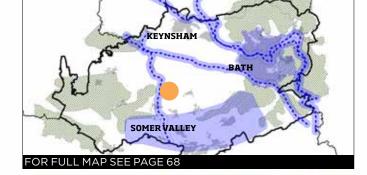
Safeguarded transport route

Existing Council Ownership of the dismantled railway line

Local Sustainable Transport Fund (LSTF)

Rights of Way Improvement Plan (ROWIP)

OutdoorsWest promotion





Potential partners

Joint Local Access Forum (JLAF), Sustrans, Local Heritage groups, Avon Wildlife Trust and local conservation groups, Parish Councils, Neighbouring Local Authorities















Bristol Bath Railway Path

Project summary

The Railway path is an existing, popular multi user corridor linking Bath to Bristol and is included in the West of England Green Infrastructure Framework as a key cross boundary green infrastructure resource. A management plan is being progressed to ensure consistent and appropriate management along its whole length and for its many users and functions. Opportunities exist to restore and enhance biodiversity and to improve links to and from local communities including Saltford, Keynsham and the river Avon to Bristol. This could provide an important component of the districts ecological network.

Whilst most of the Railway Path and all of its length within the district are designated as a site of Nature Conservation Interest (SNCI) clear opportunities exist to improve its management as a linear biodiversity resource.

The Railway path is owned by the three Local Authorities along its length and forms part of the national Cycling Network (NCN route 4).

The purpose of this project will be to ensure that the Railway Path as a whole is managed to ensure it continues to provide a quality multifunctional green corridor for both the community and wildlife. Strategic opportunities to restore and link key habitats will be identified and implemented as appropriate to properly enhance the wildlife value of this asset and also to provide significant opportunities for people to experience and enjoy high quality natural habitats and wildlife events.

Project drivers

- Increase active access to the outdoors.
- Biodiversity enhancements and connectivity
- Provide opportunities for community involvement
- Cross boundary management framework

Current status

Established multipurpose green corridor with on-going management issues and opportunities to realise further benefits for the community and wildlife

Delivery options

Complete and implement Management Plan

Explore woodland grants for essential tree management

Existing local authority budgets

Volunteers including Sustrans

Rights of Way Improvement Plan (ROWIP)

Potential partners

Avon Frome Partnership, Sustrans, South Gloucestershire & Bristol City Council, Forestry Commission, Joint Local Access Forum (JLAF), Parish Councils





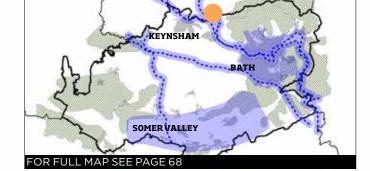
















River Avon and Canal corridor

Project summary

This project will help unlock and deliver the multiple benefits available from the river corridor for people and wildlife. It would seek to provide a framework for delivering high quality green infrastructure in association with the river and canal, providing better opportunities for recreation and active travel; providing attractive and accessible green spaces, and providing biodiversity enhancements and greater ecological connectivity.

It would involve a detailed assessment of existing assets and full assessment of issues and opportunities relating to green infrastructure provision and benefits. This will build on the initial vision within the strategy and work to support other linked initiatives such as the River Avon Catchment Management Plan; River Corridor Group Report; Avon Frome Partnership and the Council's Place Making Plan. It is envisaged that the project would involve significant stakeholder consultation and visioning of green infrastructure opportunities and delivery mechanisms.

Project drivers

There is a lot of interest and activity in the river corridor, particularly at Bath and Keynsham, and it is likely that these areas will be subject to significant change. To ensure changes can respect and enhance the values of the river and canal, and deliver multiple benefits, a green infrastructure framework is required.

Current status - the role of the river corridor as an important strategic corridor is recognised in the

West of England Green Infrastructure Framework and within the Council's Core Strategy. Background green infrastructure studies have been completed including an appraisal of issues and opportunities; initial visioning and an assessment of River Restoration opportunities for a stretch of the Avon through Bath. Development of a comprehensive and agreed green infrastructure framework has not yet begun.

Delivery options

Local Strategic Partnership

West of England Local Nature Partnership

Place Making Plan

External project funding

Potential partners:

Environment Agency; Avon Wildlife Trust; Avon Frome Partnership; Bristol Avon Rivers Trust; South Gloucestershire Council; Bristol City Council; Wiltshire Council; The River Corridor Group







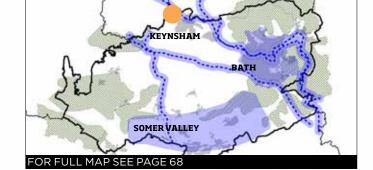
















AONB Linkway

Background

The district benefits from high quality landscapes and natural environments, recognised by inclusion of the south western part of the district within the Mendips Area Outstanding Natural Beauty (AONB), and the north eastern part of the district within the Cotswolds AONB. These two areas embrace some of our most valued landscapes and provide significant facilities and opportunities for recreation and tourism. They also support many of our priority habitats and most important wildlife sites.

To some extent these two AONBs are linked naturally by exiting east west river corridors of the Wellow and Cam. In terms of recreation and active access they are connected by the Limestone Link. However, there is no specific strategy or initiative to link the two AONBs proactively for recreational or ecological benefits.

Project summary

This project would seek to explore the benefits and options of achieving strategic links between the two AONBs for both wildlife and people. It would seek to define the best approach for achieving strategic links between the two AONBs, and would then implement the approach as funding allowed.

Project drivers

NPPF requirements to achieve robust and coherent ecological networks;

Need to deliver cross boundary links:

Desire to boost 'longer-stay' tourism opportunities;

Current status

A number of partners are already active in this broad area but there is no framework for integrated delivery and targeting of limited resources.

The potential/opportunities to add value by progressing this as a multi-functional green infrastructure project will be explored through the delivery plan process.

Delivery options

AONB Management plans

Rights of Way Improvement Plan (ROWIP)

OutdoorsWest promotion

Environmental stewardship grants targeting

Water Framework Directive (WFD) funding

Potential partners

Mendip Hills AONB. Cotswolds Conservation Board, adjoining LAs-South Gloucestershire, Somerset CC, Mendip DC, Farming Wildlife Advisory Group, Cam Valley Wildlife Group, Environment Agency, Avon Wildlife Trust, JLAF, Archaeological/historical groups near Somer Valley, Somerset Coal Canal Trust, Parish Councils





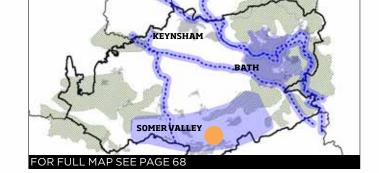
















Restoring priority habitats

Background

The quality of natural habitats has declined across the UK since the 1940's. Almost 97% of our wildflower meadows have been lost and along with 50% of our remaining ancient woodlands. This is disastrous for wildlife and debilitating for communities. The diversity of our wildlife and the robustness of our natural habitats have a strong bearing on our quality of life, whether this be through the value of natural products and service provided to local communities, or the intrinsic value wildlife brings to our daily lives. Access to nature and quality green space is now recognised as a strong influence on our health and well-being.

Despite this we seem to struggle to protect the good habitat we have left and often perform poorly in terms of creating new high quality natural habitats, or in improving and restoring those around us. The need and importance of turning this around is recognised in the government's white paper and in the National Planning policy Framework (NPPF). Both are informed by the Lawton Report (2010). This recommends an objective, "to restore species and habitats appropriate to England's physical and geographical context to levels that are sustainable in a changing climate, and enhanced in comparison with those in 2000."

To tackle this properly, landscape scale initiatives are required. We are fortunate to be located in an area where a number of Landscape Scale initiatives are underway. Avon Wildlife Trust has been running a Living Landscape project since 2008. This has focussed on the restoration of lowland meadow

and lowland calcareous grasslands. The Cotswolds Ecological Network Partnership is part of a national landscape scale initiative to restore grasslands, and is progressing development of Nature Improvement Areas focussed on the Cotswolds scarp and Cotswolds valleys.

Project summary

The key aim of this project is increase and then sustain coverage of priority habitat across the district, with a particular focus in Strategic Nature Areas (SNAs), by working with existing initiatives, and developing new approaches where needed.

Within the district the Strategic Nature Areas (SNAs) lie largely within the Cotswolds and Mendip Hills AONBs and with a smaller area south of Whitchurch. Within these SNAs the target is to achieve 30% coverage of the target priority habitat, 30% coverage of other semi- naturals alongside 40% other land use. The approach would be to explore the existing delivery mechanisms and identify gaps and opportunities to achieve habitat restoration with added values through improving appropriate access and interpretation for the community to enjoy and contribute to nature.

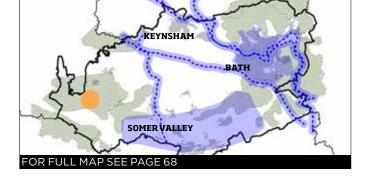
Project drivers

Climate change adaptation

Biodiversity targets 2020

NPPF requirements

Cross boundary links



Current status

Grassland restoration project active through Avon Wildlife Trust (AWT) Living Landscape Project: CENP magnificent meadows and NIA plans; Forestry Commission have identified potential Habitat Buffers for existing woodland inventory sites that could provide a focus for a woodland project.

Delivery options

Partnership working with AWT and Cotswolds AONB, Environment Agency, Catchment management plans, Volunteers, Community Infrastructure Levy (CIL), Heritage Lottery Fund and other funding sources

Potential partners: neighbouring Councils, Avon Wildlife Trust, RSPB, Cam Valley Wildlife Group, Natural England, National Farming Union, Farming Wildlife Advisory Group, Mendip Hills AONB, Cotswolds AONB; Woodland Trust, Environment Agency, Forestry Commission, West of England Nature Partnership















Protecting and sustaining ecological networks

Project summary

This project would develop an approach for the identification and protection of ecological networks, to support land-use planning and management decisions. The approach would define what is meant by coherent local ecological networks and would establish methods for their identification, protection, enhancement and management.

Key outputs would include a working network map based upon strategic nature areas; designated sites; wildlife corridors; priority habitats; and key features; a development management policy, and guidance on how ecological networks can be protected and enhanced.

Project drivers

National Planning Policy Framework National biodiversity targets

Current status

Ecological networks have not been defined for the district. A range of data is available from the Bristol regional Environmental Records Centre (BRERC). This includes designated sites, strategic nature areas. UK priority habitats, and some bat foraging and roost data. Whilst none of these data sets are comprehensive, they provide a good starting point for this project.

Delivery options

This project would need to be delivered through partnership working with relevant stakeholders and local groups, including BRERC in particular and co-ordinated / facilitated by the Council.

Potential partners

Avon Wildlife Trust, Natural England, BRERC, Wessex Water, Environment Agency, Cam Valley Wildlife Group, Woodland Trust, Forestry Commission. Bat Conservation Trust. Avon Bat Group, RSPB







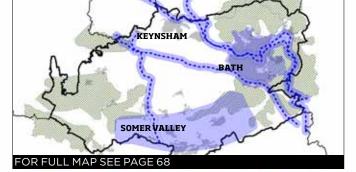


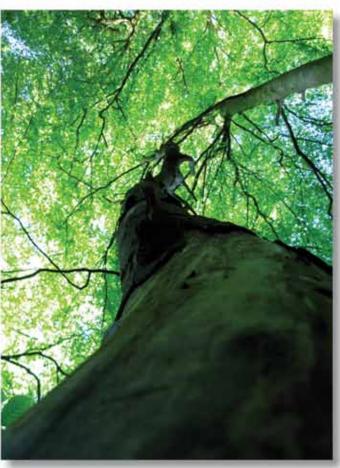












Appendix 2 Policy CP7: Green infrastructure

The integrity, multi-functionality, quality and connectivity of the strategic Green Infrastructure (green infrastructure) network will be maintained, protected and enhanced. Opportunities will be taken to connect with, improve and extend the network.

Existing and new green infrastructure must be planned, delivered and managed as an integral part of creating sustainable communities.

Delivery

The Council has a central role in the provision, delivery and planning of green infrastructure through its role as local planning authority and direct provider of significant areas of open spaces. It will also work in partnership with key public and private bodies, local communities and the voluntary sector to protect and enhance the green infrastructure network and ensure a strategic approach is taken.

The impact of new development on green infrastructure will be assessed through the Development Management process. The Council is preparing a green infrastructure Strategy and Delivery Plan which will set out further guidance as to how green infrastructure principles should be applied to development proposals including provision of major infrastructure improvements. Appropriate aspects of the green infrastructure plan will be included as SPD.

Green Infrastructure

Green Infrastructure (green infrastructure) is a 'network of multi-functional green space, both new and existing, both rural and urban, which supports the natural and ecological processes and is integral to the health and quality of life of sustainable communities' (PPS12). The wider benefits of green infrastructure for B&NES will be set out in the Council's Green Infrastructure Strategy (see below)

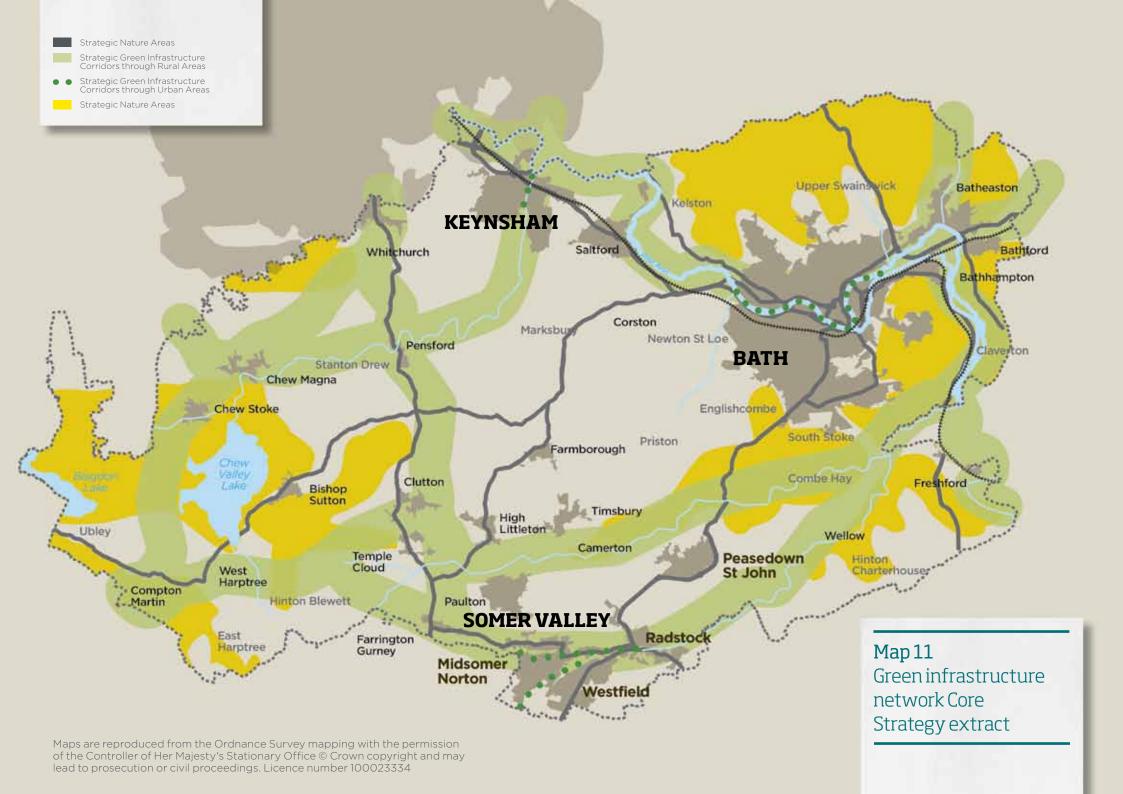
A well-designed, managed and integrated network of green infrastructure provides a wide range of direct and indirect benefits to people and wildlife. This includes a greater sense of community, improved health and well being and also local solutions to mitigate and adapt to climate change. green infrastructure can also help local responses to sustainable travel, wildlife habitats, local food production, sustainable water management including use of sustainable drainage and conserving or enhancing landscape character, historical and cultural features. It is a positive factor in eco-tourism, business location and investment decisions.

B&NES already has a wealth of existing green assets including open green spaces, street trees and woodland, other natural habitats, recreational routes, historic landscape, allotments and waterways. However, the concept of green infrastructure looks beyond existing designations, seeking opportunities to enhance the physical and functional connectivity of assets, and extend the benefits for the community.

B&NES Strategic green infrastructure network diagram (see diagram 20) is illustrative and shows a strategic overview of existing green infrastructure assets and some of the key opportunities. In the rural areas the network is based around the key recreational routes, river corridors, existing networks of wildlife sites and Strategic Nature Areas (SNAs). SNAs represent the most important areas for the conservation, expansion and restoration of important habitats. The Strategic green infrastructure corridors indicate functioning networks for recreation and biodiversity.

In urban areas the network is influenced by the existing urban form and function, but green infrastructure links through and within urban areas are an integral part of creating sustainable communities. Existing green infrastructure assets need to be protected and enhanced to achieve their full value at local and district levels. The River corridor through Bath and beyond is a key green infrastructure asset that requires a "whole river" approach to realise its full potential as a multifunctional green corridor. The Placemaking Plan will set out how new developments can contribute effectively to green infrastructure.

The Council is preparing a Green Infrastructure Strategy which will be developed within the subregional context to ensure that cross-boundary green infrastructure issues are addressed. As well as identifying the existing network, assets and opportunities for the improvement and creation of new green infrastructure, the Green Infrastructure Strategy will ensure that green infrastructure is delivered, maintained and managed sustainably and creatively well into the future.



Appendix 3 List of related strategies

(Draft) Core Strategy, 2010-2026

Joint Local Transport Plan, 2011-2026

Joint Rights of Way Improvement Plan, 2007-2011

Green Space Strategy, 2007

Flood Risk Management Strategy, June 2010

Bath & North East Somerset Cultural Strategy, 2011-2026

Sport & Active Lifestyles Get Active Strategy, 2010-2013

City of Bath World Heritage Site Management Plan, 2010-2016

World Heritage Site and its Setting Supplementary Planning Document, 2011-2026

Rural Landscapes of Bath & NE Somerset SPG 2003

Economic Strategy, 2010-2026

Public Realm & Movement Strategy, 2010

Sport & Active Lifestyles Get Active Strategy, 2010-2013

Play Strategy, 2006-2012

Joint Strategic Needs Assessment, 2007-Ongoing

My Neighbourhood 2012

Equal Opportunities Policy, 2006-Ongoing

Environmental Sustainability and Climate Change Strategic Framework, 2007-Ongoing

Carbon Management Plan, 2009-2014

Sustainable Community Strategy, 2009-2026

Shaping Up: A Healthy Weight strategy, 2011-2016

My Neighbourhood 2012

Draft Allotments Strategy

Mendip Hills Management Plan

Cotswolds AONB Management Plan

Avon Frome Management Plan

West of England Green Infrastructure Framework

Appendix 4 Partners involved in shaping the strategy

We would like to thanks and acknowledge the following partners and organisations who have contributed to shaping this Strategy:

Avon & Somerset Police

Avon Frome Partnership

Avon Fire and Rescue

Avon Wildlife Trust

Bat Conservation Trust

Bath Spa University

NHS B&NES

Bristol City Council

Bristol Regional Environmental Records Centre (BRERC)

British Waterways Trust

Combe Hay Parish Council/parish liaison

Cam Valley Wildlife group

Cotswolds AONB Conservation Board

English Heritage

Environment Agency

Farming and Wildlife Advisory Group

Federation of Bath Residents Associations (FOBRA)

Forest of Avon Trust

Keynsham Town Council

Local Access Forum

Mendip District Council

Mendips Hills AONB

Nash Partnership/River Avon Corridor Group

National Trust

Natural England

National Farmers Union

North Somerset Council

Ralph Allen School

River Restoration Centre

RSPB

Somer Housing

South Gloucestershire Council

Sustrans

The Duchy

Transition Bath

Transition Keynsham

Valley Parish Alliance

Wessex Water

West of England Partnership

Wiltshire Council

Wiltshire Wildlife Trust

Woodland Trust

Appendix 5 Glossary of terms

National character areas

Space for water

SNAs

SACs

