Northumberland County Council

A Green Infrastructure Strategy

October 2011





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Scott

strategic leisure

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Executive Summary



Executive Summary

Introduction

The landscape, biodiversity and heritage of Northumberland combine to form the County's Green Infrastructure (GI) resource and are some of the most important assets in the County, often actually defining the County and its sense of place.

Northumberland County Council (NCC) recognises the strategic importance of protecting and enhancing the County's GI assets to provide a network of well-connected, accessible multi functional assets that benefit both people and wildlife. It is important therefore that the natural assets of the landscape, biodiversity and heritage are recognised and reflected in the planning system.

This Green Infrastructure Strategy is intended to provide a working framework for action; it identifies the strategic importance and value derived from the creation of a network of multi-functional green space. This Green Infrastructure (GI) Strategy has been produced to protect and enhance the County's GI assets both now and in the future. It provides the strategic framework to ensure the provision of good quality, well-managed, readily accessible and multifunctional green infrastructure across the Northumberland sub region and beyond.

Northumberland's Key Demographic Factors

In order to develop the GI strategy the county has been subdivided in recognition of the three distinct types of area (North, South East and West) based on their demographic, geographic, cultural, and heritage differences, and the varying influence of their neighbouring communities. The key population related factors impacting on, and influencing (quantity, nature, location) the future provision of green space and infrastructure are summarised below.

Ageing Population – Northumberland's population is "greying" faster than that of England as a whole, and in some rural areas the balance has already shifted dramatically away from the pattern elsewhere – for instance in the former Berwick district, it is estimated that over-50s will become the majority of the population. By 2021, all (former) districts in the County will have a higher proportion of over-85s than the English average, including Wansbeck (3.1%) and Blyth Valley (3.0%), which are expected to have the lowest proportions within the County.

A Growth in the Elderly Population - A large proportion of the population is approaching retirement and services/facilities will increasingly need to take account of these demographic changes when planning, delivering and financing future priorities. This trend will have implications in terms of the demand for specific types of green space.

Falling numbers of Younger People – As is the case across many parts of the country, Northumberland has a falling proportion of younger people, but this is exacerbated by the increasing older population. This will impact on the type and need for future greenspace.

Population Density and Distribution - Northumberland has a very low population density, except in the urban areas, and particularly the south east. The nature of the existing housing reflects this eg terraced housing with limited green space in some areas, and will impact on the level and nature of greenspace provision required.

Deprivation and Health – some areas of Northumberland, particularly in the south east, suffer from a range of deprivation issues and are part of regeneration initiatives. The health of the community is less good in such areas, and therefore future provision of good quality, accessible green space is very important to promote healthier lifestyles.

NORTHUMBERLAND GREEN INFRASTRUCTURE STRATEGY- EXECUTIVE SUMMARY Strategy Scope

The GI Strategy scope covers sustainable land and water resources, biodiversity, sport and recreation, landscape and community issues relating to the environment and community quality of life. It also covers the potential impact of climate change, conserving and enhancing biodiversity and the quantity, quality and accessibility of provision.

The development of this Green Infrastructure Strategy considers:

- Scale and catchment at regional, and sub regional levels within defined catchments using guidance from Natural England and the Town and Country Planning Association
- Quantity as a means of identifying the level of accessible greenspace provided in and around rural and urban settlements to serve local people for both formal and informal recreation, and to provide valuable habitat to local wildlife, flora and fauna
- Quality as a means of assessing the provision of accessible greenspace to identify areas for improvement and to ensure they are fit for purpose.

Northumberland GI Definition (Including GI Assets)

Planning Policy Statement 12 (PPS12) defines GI as:

"A network of multi functional greenspace, 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".

Vision

Northumberland's GI Strategy Vision reflects the need to develop a network of multifunctional man made, natural and semi natural assets, which together provide a quality and beneficial environment, supporting both people and wildlife.

The vision for green infrastructure in Northumberland is:

- To ensure that planned and future development makes a significant contribution to the unique natural character, cultural diversity and historic interest of Northumberland.
- To provide real opportunity to improve connectivity between habitats and GI assets through a co-ordinated partnership approach between NCC, its partners, developers and landowners.
- To provide well managed, safe and attractive environments and to create improved recreational opportunity through the provision of readily accessible facilities for local people.
- To provide a strategic framework, supported by a robust evidence base, to guide new development and secure high quality design whilst extending real opportunity for improved access and biodiversity.
- To ensure that access for all lies at the heart of green infrastructure improvement and reflects opportunities for tourism, rights of way enhancement and improvement to both public transport and cycling opportunities.

• To respond to more global environmental issues such as climate change and improved water management through the provision of multi-functional, well-connected, fit for purpose green infrastructure.

Aims

The aims of the Northumberland Green Infrastructure Strategy are therefore to protect, enhance and extend character and quality of Green Infrastructure, and at the same time reverse the fragmentation of existing habitat networks, and enhance historic landscape quality and value (includes sites and areas that are already designated, and sites that are of importance at a more local level).

- To provide an evidence base for the existing green infrastructure assets in Northumberland based on a comprehensive analysis, understanding of the natural resources, human influence both past and present, and existing land use systems.
- To assess the need for future green infrastructure taking into account future population, future housing growth, patterns of behaviour and the impact of climate change.
- Identify a strategic network of green infrastructure (primary corridors, such as river corridors, green corridors and wedges), and make recommendations for the enhancement and extension of the green infrastructure network.
- To provide a high quality, accessible and biodiversity rich network that is widely valued by all those who visit live or work in Northumberland.
- To create a network of improved recreational opportunity and linkages between urban and rural areas that enables people to enjoy the rich variety of greenspace both close to where they live and in the wider countryside.
- To inspire local communities and businesses to work together to adopt healthy low carbon lifestyles and reduce the impact of predicted climate change through a greater understanding and awareness of their environmental footprint.
- To maximise the contribution of multi-functional, fit for purpose green infrastructure in reducing and adapting to the effects and implications of flood risk management and predicted climate change.
- To promote the contribution green infrastructure can make to the restoration and protection of landscape character and cultural heritage particularly with regards to the reversing the decline in biodiversity, habitat fragmentation and condition of the landscape.
- To set out clear and robust policy recommendations that can be taken on board in the Northumberland Local Development Framework and specifically the Core Strategy.
- To establish policies and guiding principles which secure the future protection and enhancement of the existing resource and results to achieve a net gain in the quantity, quality and connectivity of the GI resource.
- To produce guidelines for planners, land managers and developers that will ensure the successful implementation, integration and ongoing management of high quality, well designed accessible green infrastructure that is rich in biodiversity, and facilitates species dispersal and migration.

Key Challenges

The overall key challenges for future provision of green infrastructure, resulting from both the existing natural environment and the human influence on this environment are summarised in Table 1 below:

Natural Resource Key Challenges		Human Impact Key Challenges		
•	Maintaining the natural and historic character of the County	To recognise that the current land uses a the past	ne rich variety of re intrinsically linked to	
•	Understanding the county's hydrology and its potential influence on economic and social redevelopment at regional and sub regional levels	patterns (intense un sparse rural in othe		
•	Recognising the diverse nature of the County's ecological and biodiversity assets and the contribution they make to local distinctiveness and their wider importance	There is a significal quality of the public as identified throug Assessment audit	c open space provision	
•	To undertake proactive positive management that ensures the County's natural resource is sustainable both now and in the future	There is a variation public rights of way with some areas we connected fluent ne areas have a fragm network	across the county ell served by a well etwork, whilst other	
•	Ensuring that the natural resources are adaptable to predicted climate change and resultant changes in species diversity, migration and range		tion on the carrying ce of visitor activity on on sensitive	
•	To recognise that the future of biodiversity lies in improving connectivity between habitats and sites and ensuring these connections are functional and robust	the lasting impact of	atural resources and on the natural careful consideration,	

Table 1: Summary of Key Challenges

A further key challenge for GI provision moving forward is Climate Change. This has the potential to have a significant impact on the natural and historic landscape of Northumberland and there is a need to consider the opportunities and issues facing the County's Green Infrastructure resource as a result of predicted change. Of all the habitats it is the coast and coastal zone where the most marked changes are likely to occur.

Given the diversity of Northumberland, and the wide scope of this strategy, it is important to establish a set of overarching planning and delivery principles to guide its future provision across Northumberland. These are:

- **Multi-functionality** provision of open space and green corridors capable of providing a range of benefits, opportunities and uses, often simultaneously, at both local and sub-regional scale.
- **Connectivity** ensuring existing and new open spaces and green corridors are part of a linked network to facilitate access, and use, as a sustainable transport network.
- **Collaboration** ensuring understanding of, and buy in to, the aims for green infrastructure across Northumberland, facilitating delivery partnerships across public, private and the third sectors.

Delivering the Future Green Infrastructure in Northumberland

Northumberland is about to see an extended and potential extensive period of growth and development especially in the South East through the New Growth Point status, the potential changes to the Green Belt and planned development of sustainable energy operations offshore along the coast along with environmental tourism opportunities at places such as Kielder. A positive opportunity exists to influence, enhance and improve the natural environment through the creation of a network of accessible multi functional greenspace. This will only be achieved through placing green infrastructure at the very forefront of any planning policy to ensure the integration of green infrastructure into the planning and development process. The vision is to create a network of multi-functional man made, natural and semi natural assets, which together provide a quality and beneficial environment, supporting both people and wildlife.

Key Recommendations for Policy and Implementation

Landscape Character and Historic Environment

Create a greater sense of place within Northumberland by promoting development design that will lead to significant environmental enhancement

- GI should be used as a means of ensuring that new development, where appropriate, supports the wider objectives for developing clean, green and safe places for people to enjoy. Development needs to be underpinned by a strong 'green' context which identifies specific measures in terms of the contribution development will make to improving the attractiveness of existing urban forms as well as those being newly created. Landscape design guidance for the different development areas would be a useful tool for both planners and developers in this regard.
- Where possible planning policy needs to consider and enhance the setting of historic assets
- Where possible, development needs to give consideration to retaining or creating vistas of the area's green spaces such as agricultural land, rivers, estuaries and coast to establish strong visual linkages, edges and gateways. The characteristics of the rivers and estuaries need to be upgraded to promote public access amongst pedestrians, and where appropriate, cyclists and riders.
- Important green spaces within, or close to, settlements need to be protected and conserved, and potentially to include some 'green' buffering that will preclude any development that would damage or deter usage of GI directly adjacent to settlements.
- Stronger boundary definitions around the settlement areas should be created to restrict the impact of urban development on the character of the surrounding

countryside. This is particularly true in relation to the neighbouring National Park and AONBs

- Using the reclaimed mineral and opencast mining works as a means to create further accessible woodland, lakes and other natural spaces
- The ANGSt standards highlight that new green and open spaces accessible to the public will be required, particularly in terms of 2+ha sites associated with the existing settlements in particular around the new growth points and in the southern areas around Ponteland. The Council should utilise the planning process, development design, and developer contributions to fill these gaps in provision.
- The role of the coast needs to be conserved and protected for the benefit of public access, with GI utilised as a means of deriving these areas as multifunctional spaces. The opportunity to extend the coastal AONB southwards at Druridge Bay provides a real opportunity to allow greater access for some of the most populated areas of the county
- The role and function of the Registered Parks and Gardens needs to be recognised and where possible the network of these often historic estates need to be extended to those estates not on the register, which have potential to extend the greenspace network. It may also be worth considering the role of the County's Castles and their associated grounds as serving a similar purpose and point of interest for local people, visitors and wildlife.
- There is a need to protect and conserve the distinctive character of the County's river valleys.

Key recommendations for Landscape Shaping through Green Infrastructure:

- Use the planning process and the opportunity for change to deliver greater impetus for improving the quality of the character of the environment within urban and rural settlements across Northumberland.
- Establish design guide principles to ensure that future development and projects present real improvements to the landscape and historic environmental character of Northumberland.
- Use the Grey-Green Continuum ie the opportunity to link greenspace with other existing infrastructure such as roads, and the built environment, approach to assist in integrating shades of 'greenness' into other forms of urban development (e.g. transportation; industrial)
- Address the gaps in existing GI provision identified through the ANGSt criteria, which in turn is to be used to encourage initiatives from the public, private and voluntary sector.
- Work with associated landowners to ensure that sites of historic importance such as the country estates and castles make a significant contribution in the green network as potential hub sites.
- It will be important to use the historic settlement patterns to inform future development and to consider listed buildings in their wider context and setting to limit any developmental impact on their value.
- To allow people to closely interact with their cultural and historical legacy by making sites more accessible.

To enhance and improve the river corridors using best practice sustainable land and water management to protect the nature and character whilst also enhancing the recreational potential and biodiversity value.

Sustainable Green Transport Network

Key recommendations to improve and develop the network are set out below:

- Local parks and green spaces in urban centres are to be linked via a series of safe footpaths and designated cycle lanes lined with appropriate planting eg trees/shrubs/hedges, with greater people permeability enabled through measures to overcome traffic obstacles (e.g. road/rail crossings).
- The rivers and estuaries should become synonymous with providing safe linear green corridors that provide links between urban and rural areas. The river corridors will respectively, represent key landscape and leisure reference points for the whole of Northumberland.
- Urban-to-country circular and linear routes should be used to link key assets on the urban fringe to settlements, using the grey-green continuum to delineate the different shades of 'greenness' to be incorporated into the different corridors identified.
- Assets should also be linked with public transport to allow people to have a multi-modal journey to the countryside.
- Natural and historic sites of importance already identified should, (where appropriate, based on the individual circumstances of the site), be incorporated into the leisure route network. These should be designed to present interpretation centres/boards at key locations, resting areas, shelters and viewing points.
- Consideration should be given to connecting new amenities to the leisure network as they are developed, with Northumberlandia providing a useful example of an existing project that should be linked to the green network.
- The inclusion of other initiatives from the arts should be considered to create additional interest, with innovative techniques such as water features, topiary, lighting and sound to enhance the experience. These can be designed to present interpretation centres/boards at key locations, resting areas, shelters and viewing points (not in tranquil, dark and unspoilt, remote rural routes).
- Horse riding routes should include separated bridle paths and dedicated 'gallop' areas where possible, using woodland areas where appropriate and other open space sites. Access to privately owned land should be encouraged through stewardship schemes and through TROT for example.
- The walking and cycling network should coincide with public transport routes, visitor parking areas, and connected to commercial activities that take place across Northumberland and provide opportunity for people to cycle or hire bikes to travel to work, this will be supported by a network of refreshment centres, toilets, supply and hire facilities. Circuits should also link with small scale retail outlets eg local, gift or farm shops, and accommodation to encourage longer stays with resulting economic benefits.
- Where appropriate, the provision of suitable amenities such as secure cycle lock-ups and horse pens should be provided to encourage people to rest and recuperate at strategic locations including gateways, activity hubs and refreshment points.

- Ensure local/neighbourhood level green assets identified through PPG17 are accessible to local communities without significant barriers
- Establish coherent GI masterplans and action plans for the rivers and estuaries addressing the balance between recreational pressure from continual use as leisure routes between urban zones, the countryside and the coast and wildlife, biodiversity interest.
- With the rivers providing an axis, establish a north-south, east-west grid framework that connects the different settlements to each other, the countryside, the coast and beyond into the wider Northumberland, Tyneside, Cumbria and the Scottish Borders.
- Develop linear and circular routes to connect settlements with green assets on the urban fringe, linked in with the public transport network
- Ensure that all current, planned and future development (residential, commercial, industrial, and green) and transport infrastructure projects give clear consideration to providing new pathways and cycleways that connect with the wider GI leisure route network.
- Encourage the use of Environmental Stewardship, Permissive Rights and other initiatives (e.g. TROT) to enable development of the green transport network, and draw upon the experience of other stakeholders in terms of delivery and future management.
- At the sub regional level it will be important to ensure that the historic connection and existing transport routes is not lost; rather it is enhanced and preserved to ensure future movement for both people and wildlife.

Northumberland Water Environment

Recommendations in relation to the water environment:

- Engaging with users at initial points of contact regarding the need to consider other users and the biodiversity value of the water environment
- Establishing a series of strategic dedicated visitor areas along the rivers to enhance and contribute to biodiversity and recreational opportunity
- Using recognised Zoning Management techniques to manage different users and reduce incidents of conflict; and reduce the impact of visitors to sensitive habitat such as the marshes, reed beds and mires.
- Developing sensitive signposts that highlight places of high conservation interest along the river corridors, raising awareness of the importance for dogs to be kept on a leash, and potentially introducing diversion routes to avoid the most sensitive areas.
- Enhance existing water environment habitat to benefit wildlife and protect rare and endangered species that occur especially in the more remote uplands and at the river mouth where they enter the coastal zone.
- Support land management schemes which seek to provide opportunities to contribute to the management of flood risk and the role of sustainable urban drainage systems

Northumberland Coastal Zone

Recommendations for ensuring the Coastal Zone Develops its Green Infrastructure Potential:

- Ensure the value of the coastal zone as a principal GI resource is recognised through the planning system, with its biodiversity and wildlife value as well as its environmental character to be protected and enhanced through new development and vistas and immediate surroundings protected from any development that will lessen its GI value.
- Explore opportunities available to encourage greater use of the coastal zone that are known to have market potential, especially family markets, adrenalin sports, broader water sports and wildlife watching; these uses must, however, be balanced against the need to protect the biodiversity value of the coast. Consideration needs to be given to how each group would use the zone, the seasonality of their use and the interaction with other user groups.
- The potentially competing demands of different user groups need to be managed, with the use of clear activity zoning to be explored.
- Opportunities for commercial functions should be explored, with the design and positioning of associated structures to be considered through the planning process.
- To extend the knowledge and management skills of the designated AONB into the wider coastal zone

Green Infrastructure Hubs

Recommendations for Creating Green Infrastructure Hubs:

- Identify a series of GI hubs and gateways; examine their current status as beacons of multifunctional green spaces by providing places of conservation, leisure access, and education; and develop comprehensive long term management plans that will enhance and improve sites
- Ensure that each hub surpasses the minimum quality standards identified for the type of open spaces using Green Flag, Blue Flag, Country Park Accreditation and others.
- Integrate the hubs and gateways into the green transport network to encourage sustainable movement between the sites, with each site being clearly signposted and way marked throughout the green transport network.

Approach to Biodiversity within the Landscape

Recommendations for the future approach to Nature Conservation and Biodiversity:

- Ensure clear consideration is given to conserving existing biodiversity, having regard to the targets contained in the Northumberland biodiversity Action Plan, in all development (e.g. residential, industrial, leisure) and delivering enhanced and new environments for biodiversity as determined through the Biodiversity Action Plan.
- Identify, develop and promote a series of wildlife conservation sites that are specifically adapted to accommodate visitors (potentially including a visitor centre) that can act to educate people on the importance of nature conservation.
- Encourage existing enterprises to adopt 'green' practices that are specifically designed to promote biodiversity, especially those with a direct relationship to GI (e.g. agriculture, woodland management, leisure, tourism).

Recognise and appropriately manage potential conflicts with other users of other wildlife conservation zones and corridors (e.g. dog walkers, leisure users, sports enthusiasts) to avoid inadvertent damage to habitat growth.

Towards Delivery

The way forward for GI in Northumberland is dependent upon the strategy being owned and ratified by the strategic partners and stakeholders currently involved in the many aspects of GI improvement enhancement and strategic development. A key challenge over the next decade will be the co-ordination and prioritisation of projects and funding to deliver a network of well-connected multi purpose green infrastructure across Northumberland, through a partnership approach.

Section 1 - Introduction



1 Introduction

- 1.1 The landscape, biodiversity and heritage of Northumberland combine to form the County's Green Infrastructure (GI) resource and are some of the most important assets in the County. In most instances they actually define the County and its sense of place. The historic landscape of the County encompasses the built, cultural, archaeological and natural heritage, whilst the extensive network of open space and public parks provide important areas for both passive and active recreation as well as key space for enhancing biodiversity. See Appendix 1 - The benefits of Green Infrastructure.
- 1.2 The county is framed by its upland and coastal landscapes with a rich and diverse variety of landscape character areas lying in between, all of which are an integral and important part of the County's identity, adding to the quality of life for both local people, visitors to, and investors in, the County. The character areas provide the physical environment for the everyday experiences of those who live and work in, or visit, Northumberland. They also prove valuable assets that contribute to the County's wider economy.
- 1.3 Northumberland County Council (NCC) recognises the strategic importance of protecting and enhancing the County's GI assets to provide a network of well connected, accessible multi functional assets that benefit both people and wildlife. It is important therefore that the natural assets of the landscape, biodiversity and heritage are recognised and reflected in the planning system. NCC recognises the opportunity provided by the county's rich diversity of natural and historic environments to make a positive contribution to the regeneration, sustainable development and quality of life for people who live, work in, and visit, Northumberland.

The Northumberland Green Infrastructure Strategy

- 1.4 In order to plan strategically for the future, NCC has developed a suite of green infrastructure, open space, sport and recreation documents for Northumberland to underpin the preparation of the Local Development Framework (LDF) and to meet the requirements for the South East Northumberland New Growth Point (SENNGP). The documents include this GI Strategy, a GI Strategy for the South East Northumberland New Growth Point (SENNGP). The documents include this GI Strategy, a GI Strategy for the South East Northumberland New Growth Point (SENNGP), a PPG17 Open Space, Sport and Recreation Assessment (Planning Policy Guidance 17, requires all local authorities to undertake an assessment of accessible open space provision based on type, quantity, quality and accessibility with the view to developing robust and transparent planning provision standards), and a Playing Pitch Strategy (PPS). These are described in more detail below:
 - South East Northumberland Green Infrastructure Strategy (SENGP) 2010- 2020 The strategy has been developed in line with the key principles and objectives of this Green Infrastructure Strategy for Northumberland. The purpose of the South East Northumberland New Growth Point Green Infrastructure Strategy is to define the specific issues, challenges and opportunities for the South East. It will ensure that green infrastructure in the designated areas of housing growth and commercial development is developed to meet both the current and future needs of residents and visitors.
 - Planning Policy Guidance Note 17 (Northumberland PPG17- 'Local Needs Assessment for Open Space, Outdoor Sport and Recreation) 2010- 2020 The purpose of this strategy is to produce a comprehensive and robust audit and assessment of the County's provision of open space, outdoor sport and recreational facilities. This strategy identifies the distribution of provision and also identifies where in the county there maybe a surplus or deficiency of provision in terms of quantity, quality and accessibility. This is based on comprehensive consultation with local people, stakeholders and organisations. It is also based on a robust site audit to determine the quality, type and condition of greenspace. It sets the priorities for the future and sets policies for the protection and enhancement of provision across the whole of the Northumberland sub region. This strategy is the evidence base upon which future planning standards will be set. It is a very detailed assessment that drills down to the smaller more local sites and identifies at the local level where there is the opportunity for further provision or the potential for a change of use. Therefore it forms

an essential part of the evidence base that has been developed in support of this Green Infrastructure Strategy.

• Playing Pitch Strategy (PPS) 2010 - 2015 - The strategy has been developed in compliance with Sport England's Towards a Level Playing Field Methodology. The strategy has involved the spatial mapping and quality assessments of pitch and changing room provision. It has assessed local demand, on a sport by sport basis, for the next five years, based on extensive club and team consultation. The playing pitch strategy has been used as part of the evidence base that informs the PPG17 Assessment and the South East Northumberland New Growth Point Green Infrastructure Strategy and the Northumberland Green Infrastructure Strategy to ensure there is network of good quality facilities, available to local people.

Purpose and Scope

- 1.5 This Green Infrastructure (GI) Strategy has been produced to protect and enhance the County's GI assets both now and in the future. It provides the strategic framework to ensure the provision of good quality, well-managed, readily accessible and multifunctional green infrastructure across the Northumberland sub region and beyond.
- 1.6 This Green Infrastructure Strategy is intended to provide a working framework for action; it identifies the strategic importance and value derived from the creation of a network of multi-functional green space. It forms part of a suite of policy documents that will act as a reference for both planners and developers, to inform the planning process. The GI Strategy will also be used to inform the preparation of the Northumberland Local Development Framework (LDF), providing the evidence base and detail to support planning policy and ensure developers reflect GI principles and priorities when bringing forward development proposals. It will provide the strategic vision and GI context and evidence base to guide the location, pattern of development to maximise environmental benefit and deliver a net gain in green infrastructure. The Strategy provides the framework for action in identifying the areas that offer maximum value and strategic importance in terms of the creation of multi-functional green infrastructure, as well as the protection and provision of the green infrastructure resource.
- 1.7 This GI strategy will set a framework for NCC as a planning authority. Whilst the Northumberland National Park is an integral part of the County's landscape, it is a planning authority in its own right and as such is subject to separate planning legislation. This GI strategy, however, will help to support and protect the National Park landscape through the encouragement of cross boundary working and informed planning processes.
- 1.8 The scope of this GI Strategy is therefore extensive. It covers sustainable land and water resources, biodiversity, sport and recreation, landscape and community issues relating to the environment and community quality of life. It also covers the potential impact of climate change, conserving and enhancing biodiversity and the quantity, quality and accessibility of provision. The GI Strategy is informed by both existing research, and that undertaken specifically to inform the four strategies identified in paragraph 1.4.
- 1.9 This Green Infrastructure Strategy builds on existing principles and environmental initiatives currently being planned or implemented across the county that support:
 - **Regional environmental improvements,** for example the development of a green grid network of connected space such as the river corridors. or improved major green infrastructure sites, sites of historic importance, sites important to the tourism appeal of the county.
 - Area based initiatives these are the initiatives that aim to improve sites and habitats over a wide area and normally over an extended period of time.
 - **Neighbourhood** designed to focus on partnership liaison especially with landowners and tenants, to enhance landscape character, biodiversity interest or improve habitat.

Northumberland County Council

Northumberland Green Infrastructure Strategy

- Local Initiatives designed to engage local communities and improve accessibility, biodiversity or local landscape.
- 1.10 The development of this Green Infrastructure Strategy considers:
 - Scale and catchment at regional, and sub regional levels within defined catchments using guidance from Natural England and the Town and Country Planning Association.
 - Quantity as a means of identifying the level of accessible greenspace provided in and around rural and urban settlements to serve local people for both formal and informal recreation, and to provide valuable habitat to local wildlife, flora and fauna.
 - Quality as a means of assessing the provision of accessible greenspace to identify areas for improvement and to ensure they are fit for purpose.

N.B Accessible greenspace refers to the Natural England ANGST standards. ANGSt is based on three guiding principles namely; improving access, improving naturalness and improving connectivity. The ANGSt model recommends that everyone regardless of where they live should have access to a natural greenspace:

- Of at least 2 hectares in size, no more than 300 metres (5 minutes walk) from where they live
- At least one accessible 20 hectare site within 2 kilometres of where they live
- One accessible 100 hectare site within 5 kilometres of where they live
- One accessible 500 hectare site within 10 kilometres of where they live
- Plus 1 ha of local nature reserve per 1000 population.

Timescale

1.11 The Green Infrastructure Strategy 2011 – 2031 will complement and support the Core Strategy and planned strategic housing development scheduled over the next 20 years.

Key Challenges

- 1.12 The key challenges (KC) to be addressed in developing this GI Strategy are outlined below:
 - KC1 Population Growth and loss of natural areas Planned development will place increased pressure on the existing GI resource; it is therefore important to understand the impact development will have on the landscape, natural systems, habitat and wildlife. This is particularly relevant for the planned growth in the designated South East Northumberland New Growth Point where new development is to take place in an already densely populated area. The PPG17 Assessment undertaken as a supporting evidence base for the LDF outlines standards of provision for the more local accessible green spaces.
 - **KC2** Fragmentation of habitat It will be important to plan to address habitat fragmentation, especially where barriers have already led to breaks in the connectivity of the GI resource, and to **develop** a landscape where the rural countryside connects with urban green spaces to create corridors for wildlife and to reverse habitat fragmentation and increase biodiversity.
 - **KC3** Sustainable Resource Management It will be increasingly important to understand how inappropriate resource management in one area may have a ripple effect elsewhere in the county. This will be particularly relevant in environmentally sensitive areas such as the coast or areas prone to flooding. It is also important in relation to the boundaries of the Northumberland

National Park where careful planning is needed to ensure there is limited impact on the National Park environment.

- **KC4 Sustainable Transport -** Increasing the use of sustainable transport to reduce road congestion, air pollution and CO2 is a challenge. The GI Strategy will have to support a wide array of other strategies that are being produced that aim to reduce reliance on the car as the main mode of travel, particularly in the more rural areas. The creation of a GI network will play an essential role in contributing and complementing these strategies through the provision of greater opportunity for walking, horse riding and cycling and the creation of new multi purpose routes that are safe and accessible. The sustainability and protection of the two existing AONBs will also need to be reflected in proposals to increase use of sustainable transport.
- KC5 Sustainable Communities The delivery of an integrated GI resource will need to be strategically planned across the whole Northumberland sub region and at all spatial planning levels. It is important that all GI both now and in the future contributes to the improved health of local communities, and therefore to the quality of life, of local people across Northumberland. The GI strategy will need to help deliver good quality open space close to where people live and work.
- **KC6 Social Cohesion -** Improving the quality of green infrastructure is a challenge that needs to be addressed if sites are then to be passed to local communities to manage. Well managed green infrastructure is known to contribute to stronger community cohesion as they provide the venues for socialisation, community events and provide opportunity for volunteering to improve local surroundings. Improving areas may also encourage people and local business to invest in an area.
- **KC7 Economy, Recreation and Tourism -** The landscape, natural, cultural and historic environment plays an important role in the economy of Northumberland. The challenge is going to be managing the many initiatives that are planned or underway by the numerous organisations, landowners and individuals that contribute to the green economy through the provision of additional or improved recreation or tourism opportunities. The potential role that GI could play in economic regeneration beyond tourism is also an important consideration, alongside its contribution to raising the profile of environmental assets generally, and how they are used and valued in the long term.
- **KC8** Landscape and historic environment The GI Strategy will need to promote the protection and enhancement of the landscape and historic environment.
- **KC9 Mineral and Waste -** It is essential to plan, manage and limit the impact of the harmful effects of waste and mineral extraction with regards to natural systems and the wider environment. It will be key to the GI strategy to ensure that both mineral and waste sites are restored and provide valuable connections within the GI network. The sites that have already been restored require intensive and prolonged management if they are to become valuable assets for local people and wildlife.
- K10 Partnership and Cross Boundary Working Developing a holistic approach is critical and will require working with neighbouring authorities, private sector, interest groups, government agencies and the private landowners to deliver the vision and to create a well connected network of multi functional green infrastructure. It is important to recognise that green infrastructure networks do not stop at administrative boundaries and future planning needs to take a holistic cross boundary approach.

Green Infrastructure Strategy Methodology

1.13 The Green Infrastructure Strategy has been developed in accordance with Natural England Green Infrastructure Guidance and sets out the core components of green infrastructure. The assessment of green infrastructure has been undertaken by classifying the provision under two generic groups; the first considers the natural elements of green infrastructure whilst the second is as result of human impact.

Natural Systems	Human Systems
Landscape Character (Natural and Historic)	Access Corridors
Historic, Archaeological and Cultural Landscape	Accessible Open Space
Biodiversity and Natural Environment	Tourism
Water Environment	Adapting to Climate Change

- 1.14 For each of the above, green infrastructure has been considered in terms of the actual resource, the issues that affect that resource, the fluidity between natural and human systems and the potential opportunities the resource therefore affords.
- 1.15 The Green Infrastructure Strategy details the county's green infrastructure resource and access routes. It establishes how these will be enhanced through a greater understanding and a more transparent approach to the planning of green assets in the future. It also identifies where the creation of new green assets and connected route-ways would best help improve or raise the quality of an area.
- 1.16 In order to develop the strategy the county has been subdivided in recognition of the three distinct types of area (North, South East and West) based on their demographic, geographic, cultural, and heritage differences, and the varying influence of their neighbouring communities. In terms of the county's economy, links with Tyneside have been considered. Approximately 28% of the active workforce commutes into Tyneside to work on a daily basis. Equally the county benefits from people migrating in for work and culture and leisure interests with around 15% of the workforce travelling in on a daily basis from Tyne and Wear to work.
- 1.17 The methodology has followed the guidance outlined by Natural England. The data has been collated and analysed using digital information mapping systems (GIS), and a wide variety of information sources that have included data provided by Natural England, the Northumberland Wildlife Trust, Groundwork, the Forestry Commission, Northumberland Water and data held within NCC.
- 1.18 This research and analysis includes
 - A review of national, regional and local strategic context in relation to green infrastructure to identify how the county has evolved in terms of planning policies and green infrastructure development.
 - A comprehensive review of previous open space studies undertaken by the former district councils to create a consolidated and comprehensive site dataset.
 - A review of national, regional and local data and mapping information to identify strategic themes covering Landscape, Historic Environment, Biodiversity, Access and movement, recreation and tourism and natural processes.

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- A review of existing sites classified for their natural (e.g. ancient woodlands, coastal zones), biodiversity (local, national and international), heritage value (e.g. Ancient Monuments, Listed Building), and leisure value (e.g. public access parks, public rights of way).
- A comprehensive site audit to over 1300 individual sites to assess the quality and nature of sites and the individual elements within them.
- A review of the accessibility of sites.
- A review of the current activities and future aspirations of key organisations through consultation with key stakeholders that operate, manage and invest in facilities and amenities that constitute part of the GI asset base.
- 1.19 The following elements have been identified and mapped either as part of this strategy or have been mapped for other purposes and incorporated into this strategy, (For example the Historic Landscape Characterisation Study developed by NCC has an extensive data set and comprehensive mapping that have been utilised as part of this study). Where information has been drawn from other infrastructure studies these are referenced accordingly.
- 1.20 The green infrastructure mapping has included the collection of data from NCC's planning and GIS mapping records, combined with wider data collection from numerous national, regional and local organisations. This allowed for an accurate picture to be mapped across the County, including:
 - Designations of Landscape Character, Historic Landscape Character, National Park, Areas of Outstanding Natural Beauty, Heritage Coast, World Heritage Sites.
 - Natural Landscape Features including Main Rivers, Flood Plains.
 - Biodiversity including designations that are more site specific such as National Nature Reserve, Local Nature Reserves, Sites of Special Scientific Interest, and Local Wildlife and Geological Sites.
 - Accessibility/ Connectivity including the Rights of Way Network, key strategic footpaths, cycle routes and green route-ways.
 - Strategic Sites including the urban parks, country parks, woodland.
- 1.21 The formulation of GI planning policy has been developed to consider accessibility thresholds, quantity and quality of provision, and to ensure the county has the right type of provision in the right place to address both local needs and biodiversity interest.

Northumberland GI Definition (Including GI Assets)

1.22 Planning Policy Statement 12¹ (PPS12) defines GI as:

¹ Planning Policy Statement 12 is one of a number of statements that are prepared by the Government to explain statutory provisions and provide guidance to local authorities and others on planning policy and the operation of the planning system. They also explain the relationship between planning policies and other policies which have an important bearing on issues of development and land use. Local authorities must take their contents into account in preparing plans. The guidance may also be relevant to decisions on individual planning applications and appeals.

"A network of multi functional greenspace, 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".

1.23 The GI assets covered by this strategy include:

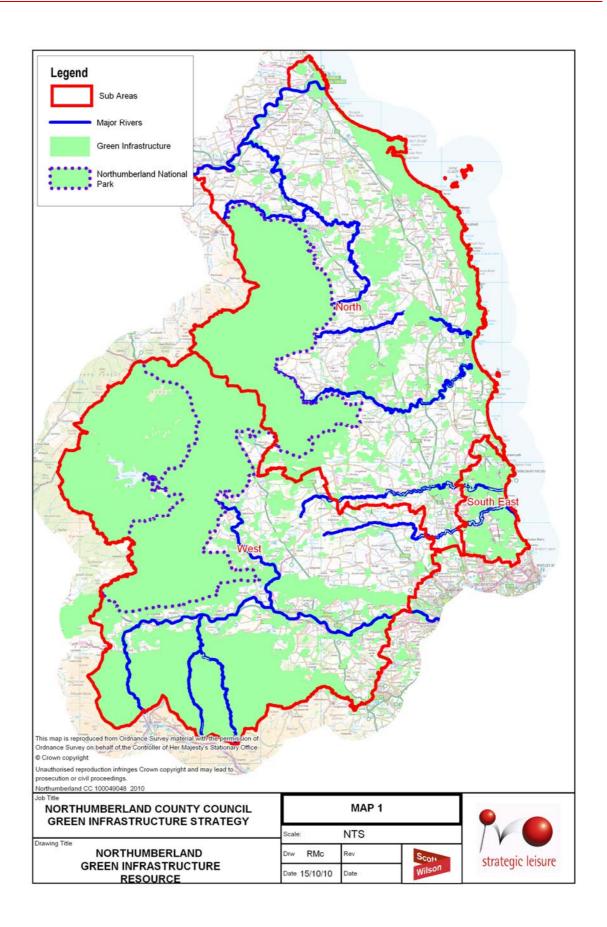
Table 1.1 GI Assets covered by this Strategy

Regional	Sub Regional
Nationally designated sites e.g. NNRs, SACs, Ramsars, SPAs, National Parks, AONBs, Heritage Coasts, Ancient Woodlands, World Heritage Sites	Significant or extensive public parks and gardens e.g. country parks, forest parks
Major river corridors e.g. Tyne	Local Nature Reserves
Coastline and beaches	Main river corridors and watercourses e.g. Coquet, Wansbeck, Blyth, Tweed
Major recreational and amenity sites	Strategic recreational routes, pubic rights of way, cycle ways e.g. St Cuthbert's Way, Kielder Lakeside Way, South Tyne Trail
Long distance footpaths e.g. Pennine Way National Trail, Hadrian's' Wall National Trail, Northumberland Coast Path	Local Wildlife and Geological Sites (SNCIs as was)
National Cycle Network and SUSTRANS routes e.g. Coast and Castles cycle route (National Route 1), Rivers Cycle Route (Regional Route 10)	Northumberland Wildlife Trust Nature Reserves
Major roads and railways (including minerals and disused railway lines/wagonways)	Significant archaeological and historic sites
Registered Parks and Gardens e.g. Wallington Hall, Cragside, Belsay Hall	
Registered Battlefields e.g. Battle of Flodden Field, Battle of Halidon Hill, Battle of Homildon Hill and Battle of Otterburn	

1.24 Map 1 shows the existing green infrastructure resource in Northumberland.

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1.25 This Northumberland GI Strategy adopts the PPS12 definition and aims to ensure that Northumberland's GI resource provides a strategic network of multi functional, accessible sites (including informal spaces, parks, woodland, nature reserves and historic sites) as well as linkages (such as river corridors, floodplains, greenways and wildlife corridors) that positively contribute to people's well being and quality of life whilst also being a coherent and well managed resource, responsive to changing conditions.

Vision and Aims

Vision

- 1.26 Northumberland's GI Strategy Vision reflects the need to develop a network of multi-functional man made, natural and semi natural assets, which together provide a quality and beneficial environment, supporting both people and wildlife.
- 1.27 The vision for green infrastructure in Northumberland is:
 - To ensure that planned and future development makes a significant contribution to the unique natural character, cultural diversity and historic interest of Northumberland.
 - To provide real opportunity to improve connectivity between habitats and GI assets through a co-ordinated partnership approach between NCC, its partners, developers and landowners.
 - To provide well managed, safe and attractive environments and to create improved recreational opportunity through the provision of readily accessible facilities for local people.
 - To provide a strategic framework, supported by a robust evidence base, to guide new development and secure high quality design whilst extending real opportunity for improved access and biodiversity.
 - To ensure that access for all lies at the heart of green infrastructure improvement and reflects opportunities for tourism, rights of way enhancement and improvement to both public transport and cycling opportunities.
 - To respond to more global environmental issues such as climate change and improved water management through the provision of multi-functional, well-connected, fit for purpose green infrastructure.

Aims

- 1.28 The aims of the Northumberland Green Infrastructure Strategy are therefore to protect, enhance and extend character and quality of Green Infrastructure, and at the same time reverse the fragmentation of existing habitat networks, and enhance historic landscape quality and value (includes sites and areas that are already designated, and sites that are of importance at a more local level).
 - To provide an evidence base for the existing green infrastructure assets in Northumberland based on a comprehensive analysis, understanding of the natural resources, human influence both past and present, and existing land use systems.
 - To assess the need for future green infrastructure taking into account future population, future housing growth, patterns of behaviour and the impact of climate change.

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- Identify a strategic network of green infrastructure (primary corridors, such as river corridors, green corridors and wedges), and make recommendations for the enhancement and extension of the green infrastructure network.
- To provide a high quality, accessible and biodiversity rich network that is widely valued by all those who visit live or work in Northumberland.
- To create a network of improved recreational opportunity and linkages between urban and rural areas that enables people to enjoy the rich variety of greenspace both close to where they live and in the wider countryside.
- To inspire local communities and businesses to work together to adopt healthy low carbon lifestyles and reduce the impact of predicted climate change through a greater understanding and awareness of their environmental footprint.
- To maximise the contribution of multi-functional, fit for purpose green infrastructure in reducing and adapting to the effects and implications of flood risk management and predicted climate change.
- To promote the contribution green infrastructure can make to the restoration and protection of landscape character and cultural heritage particularly with regards to the reversing the decline in biodiversity, habitat fragmentation and condition of the landscape.
- To set out clear and robust policy recommendations that can be taken on board in the Northumberland Local Development Framework and specifically the Core Strategy.
- To establish policies and guiding principles which secure the future protection and enhancement of the existing resource and results to achieve a net gain in the quantity, quality and connectivity of the GI resource.
- To produce guidelines for planners, land managers and developers that will ensure the successful implementation, integration and ongoing management of high quality, well designed accessible green infrastructure that is rich in biodiversity, and facilitates species dispersal and migration.
- 1.29 The vision and supporting aims will support improvement to current overall environmental quality, and therefore contribute to the economic regeneration agenda and the promotion of sustainable communities.
- 1.30 It is important to recognise that connectivity is always possible, albeit not necessarily for human access purposes/function. Whilst there will always be sites that cannot be connected physically via access routes for people, such greenspaces can still provide tremendous benefits to the local community they are designed to serve, and therefore need the same level of consideration in the planning process to ensure they are protected, enhanced and improved.

Benefits of Green Infrastructure

- 1.31 The provision of well-planned networks of green infrastructure will realise a number of benefits for Northumberland. These include:
 - A clear understanding as to what is needed to enhance and improve the environmental setting and image of the Northumberland sub region to establish it as a high quality place to live work and invest.
 - The opportunity to work in partnership with neighbouring authorities to share cross boundary initiatives and develop a co-ordinated partnership approach to the delivery of a multi-functional network of GI assets, contributing to improved biodiversity, accessibility and landscape character.

- Making a significant contribution to environmental sustainability and understanding the implications of predicted climate change, flood risk and water attenuation.
- The provision of better opportunities for sport and active recreation, and the improvement in the health and well being of local people.
- An enriched environment that provides a balance between recreation and conservation need, whilst significantly contributing to biodiversity action plan targets.
- An improved network of GI assets provide opportunity to link new communities with existing neighbourhoods.
- The opportunity to enhance Northumberland's activity-based environmental tourism.

Green Infrastructure Principles

- 1.32 There is increasing support for Green Infrastructure and the need to ensure that new development and regeneration proposals contribute to the quality and value of the existing landscape, biodiversity and cultural diversity.
- 1.33 The delivery and implementation of this Green Infrastructure Strategy will only be achieved through partnership working and a collective "buy in" by stakeholders, organisations and local people. It is important therefore to establish a set of overarching guiding principles to act as a guide for future delivery. The recommendations of this GI Strategy derive from the need to implement/guide changes in existing GI to maximise it as an asset, reflecting the principles below.
- 1.34 Given the diversity of Northumberland, and the wide scope of this strategy, it is important to establish a set of overarching planning and delivery principles to guide its future provision across Northumberland. These are:
 - **Multi-functionality** provision of open space and green corridors capable of providing a range of benefits, opportunities and uses, often simultaneously, at both local and sub-regional scale.
 - **Connectivity** ensuring existing and new open spaces and green corridors are part of a linked network to facilitate access, and use, as a sustainable transport network.
 - **Collaboration** ensuring understanding of, and buy in to, the aims for green infrastructure across Northumberland, facilitating delivery partnerships across public, private and the third sectors.
- 1.35 The following specific guiding principles will help promote green infrastructure planning in Northumberland:

Planning and Development (PD)

- 1.36 The planning, management and design of Green Infrastructure in Northumberland will ensure:
 - PD1 All new development and redevelopment schemes will make a significant contribution to Northumberland's Green Infrastructure network and will fully integrate into the surrounding landscape whilst providing links to existing communities and combating predicted climate change.
 - PD2 Development and regeneration proposals will provide high quality open space, green space that promotes social cohesion and makes a positive contribution to the quality of life for local people while generating a net gain in the County's Biodiversity Action Plan targets.

- PD3 Community involvement will be encouraged at the start of any design, implementation or management of green infrastructure.
- PD4 The principle of a net gain will apply to proposals that affect any potential loss to the existing green infrastructure resources.
- PD5 Proposals will be designed to ensure development is of high quality, contributes to combating predicted climate change and environmental sustainability in order to support the economic, social and environmental aspirations for Northumberland.
- PD6 Use will be made of planning conditions and planning obligations (such as Section 106 or the newly introduced Community Infrastructure Levy (CIL)) to secure the necessary and appropriate funds for the provision of high quality management and maintenance of green infrastructure.
- PD7 Create new recreational opportunities through improved connectivity between urban settlements and the wider countryside that contribute to community development, social cohesion and educational opportunities.

Accessibility and Recreational Use (AR)

- 1.37 The planning, management and design of Green Infrastructure in Northumberland will
 - AR1 Promote the Northumberland's Rights of Way Improvement Plan and associated action plan to promote a network of connected recreational access routes that can be assessed through sustainable transport and support healthy lifestyles.
 - AR2 Improve connectivity by ensuring the creation of new space is in areas that are deficient as highlighted in the findings of the supporting PPG17 Assessment.
 - AR3 Work to ensure that the public rights of way network are safe, well maintained and appropriately signed and that new access routes for the public focus on those areas where access is restricted at present and reflect those identified in the Northumberland Rights of Way Improvement Plan.
 - AR4 Work to raise the quality and accessibility of existing open space and incorporate appropriate infrastructure, cultural and educational activities to increase the appeal of sites to local people.
 - AR5 Ensure that all open space provision is designed to promote the fundamental principles of the Green Flag Award, namely ensure they are welcoming, safe, well managed, well maintained and sustainable. This is especially important for all new provision.
 - AR6 Overcome the physical barriers that limit access to strategic sites.
 - AR7 Refer to the evidence base and best practice identified in the collation of the PPG17 local needs assessment, site audit results and consultation findings.
 - AR8 Ensure that highway improvement schemes and new road construction schemes provide a positive contribution to enriching the biodiversity value of local green infrastructure through the incorporation of roadside ponds, copse or wild flower meadows.
 - AR9 Recognise the opportunities provided through local greenspace and green corridors for participation in sport and promoting health and well being.

Landscape and "Sense of Place" (LSP)

- 1.38 The planning, management and design of Green Infrastructure in Northumberland will
 - LSP 1 Contribute to the protection and enhancement of landscape and historic assets.
 - LSP2 Reflect the landscape character and support the positive management, improvement and conservation of the local landscape across Northumberland.
 - LSP3 Seek to deliver development objectives that are sustainable and lead to the enhancement of existing townscape character and landscape quality or to the creation of sustainable new landscapes that support and add to Northumberland's unique character and sense of place.
 - LSP4 Improve the condition of existing green infrastructure assets and the connectivity between them through enhancement, good management and maintenance as a means to strengthen landscape character.
 - LSP5 Incorporate the key characteristics from the Northumberland Landscape Character Assessment to ensure the character of Northumberland is sustained and strengthened.
 - LSP6 Seek to improve the local townscape and public realm character through the enhancement of public squares, residential areas and the introduction of sustainable alternatives such as green roofs, swales, street tree networks and sustainable drainage systems.
 - LSP7 Promote visual connection between the urban areas and wider countryside to strengthen landscape quality and improve the appeal and approach to the urban fringe.

Historic Environment, Heritage and Archaeology (HEHA)

- 1.39 The planning, management and design of Green Infrastructure in Northumberland will:
 - HEHA1 Refer to the County Historic Landscape Assessment to inform the development of and new proposals that may have an adverse effect on the County's historic landscape heritage or archaeological legacy.
 - HEHA2 Conserve and protect the natural views across the county and in particular the historic relationship that exists between the coast and coastal plain and the uplands and open moors.
 - HEHA3 Enhance and promote the County's historic environment, heritage and archaeological importance wherever practical.
 - HEHA4 Ensure that green infrastructure contributes to the conservation, improvement and management of the local townscape and landscape at the variety of spatial scales (from local to regional) reflecting the landscape character approach.
 - HEHA5 Lead to the protection and enhancement of the historic environment, heritage and archaeological legacy.

Community Cohesion (CC)

- 1.40 The planning, management and design of Green Infrastructure in Northumberland will:
 - CC1 Provide opportunities for the community to be involved in the ongoing maintenance, management and enhancement of the green infrastructure assets to develop a sense of local pride and place.
 - CC2 Involve the community in the planning of green infrastructure to ensure its meets local needs and is appropriate.
 - CC3 Provide the means for skills development, life long learning and education in the management and development.
 - CC4 Reflects the aims of the Community Strategy for Northumberland and supports the guiding principles therein.

Biodiversity and Natural Systems (BNS)

- 1.41 The planning, management and design of Green Infrastructure in Northumberland will:
 - BNS1 Enhance and maintain biodiversity leading to net gain of Local Biodiversity Action Plan Habitats while reducing the impact of development on the natural systems in Northumberland.
 - BNS2 Ensure that new development enhances rather than damages existing wildlife sites.
 - BNS3 Manage wildlife corridors to facilitate and support the movement of species and provide linkages to reduce the existing habitat fragmentation especially in and around designated wildlife sites.
 - BNS4 Protect and seek to improve the function and integrity of natural systems (soils, bio and geo diversity and hydrology).
 - BNS5 Expand the agri environment schemes to encourage and increase the biodiversity of agricultural land.
 - BNS6 Seek to support sustainable management initiatives that utilise natural systems to generate financial income such as biomass cropping or sustainable forestry for wood fuel.

Section 2 - Northumberland in Context



2 Northumberland in Context

Summary of the Planning Context and its Implications

2.1 There is a growing recognition of important need to plan effectively in relation to Green Infrastructure, its protection, enhancement, integration and critically extension, to ensure that green spaces are part of our daily environment, contribute to sustainable communities and provide opportunities to create green transport networks. These aspirations are reflected in national, regional and local planning policy.

National Planning Policy Framework

- 2.2 The Sustainable Communities Plan² was first published in 2003 to set out the Government's sustainable approach to providing the necessary housing and jobs in proposed growth areas. The plan highlights the importance of the local environment and seeks to ensure that communities have access to safe, sustainable and healthy environments, including well designed public and green space.
- 2.3 National Planning Policy is identified through a series of Planning Policy Statements (PPS).
 - **Planning Policy Statement 1(PPS1)**³ Delivering sustainable development (2005), looks to development to ensure an appropriate mix of uses that includes green and public spaces. PPS1 refers to the need to protect conserve and enhance the quality, character and amenity value of the natural and built environment. It seeks to ensure that planning helps maintain and improve the local environment helping reverse the effects of declining environmental quality. It promotes the need for positive planning policies that will drive up the quality of design, conservation and provision of public space.
 - **Planning and Climate Change-2007 (Supplement to PPS1)**⁴-recognises the role green infrastructure can play in addressing urban cooling, sustainable drainage conserving and enhancing biodiversity and ultimately redressing climate change.
 - Planning Policy Statement 5 (PPS5) Planning for the Historic Environment sets out the planning context for the historic environment and its heritage, to ensure it is conserved for the enjoyment of this and future generations, and recognises that it is a non-renewable asset.
 - **Planning Policy Statement 7 (PPS7)**⁵ Sustainable Development in Rural Areas (2007)-Identifies the need for planning policies and development control decisions to pay due regard to the conservation of wildlife, cultural heritage, national and locally designated areas and sites such as National Parks, Areas of Outstanding Natural Beauty (AONB). The policy also recognises the importance local designations can make. As such PPS7 Calls for carefully drafted criteria based policies that utilise such initiatives as landscape character assessment.
 - **Planning Policy Statement 12 (PPS12)**⁶ Local Spatial Planning (2008) supports the need for green infrastructure planning to be incorporated into the development of local spatial planning and NCC's Core Strategy. The policy identifies that the core strategy needs to be supported by an evidence base that identifies what green infrastructure is needed to inform proposed development in an area.
 - Planning Policy Statement 9 (PPS9)⁷ Biodiversity and Geological Conservation, emphasises the significant role the planning system has in protecting biodiversity and geology resources. The

² Sustainable Communities: Building for the Future ODPM (2003)

³ PPS1 Delivering Sustainable Development, DCLG,2005

⁴ Planning and Climate Change- Supplement to PPS1,DCLG, 2007

⁵ PPS 7 Sustainable Development in Rural Areas, DCLG,2007

⁶ PPS12 Local Spatial Planning, DCLG,2008

⁷ PPS9 Biodiversity and Geological Conservation, DCLG 2005

policy set out three guiding principles namely to promote sustainable development, to conserve, enhance and restore the diversity of England's Wildlife and Geology and to contribute to urban renaissance and rural renewal.

- Planning Policy Guidance Note 17: (PPG17)⁸Planning for Open Space Sport and Recreation (2002) PPG 17 outlines the Government's policy objectives for open space, sport and recreational facilities, with the need to ensure that those elements are of a high quality, attractive to users, well-managed and well-maintained. PPG17 is discussed in more detail below.
- 2.4 The PPG17 Study for Northumberland addresses the Government's requirement for NCC to undertake a Planning Policy Guidance Note 17 (PPG17) 'assessment of local need' in relation to developing a comprehensive audit of local need and providing transparency in NCC's future planning policy. It provides detailed information with regards to the condition of accessible open space in urban and rural residential settlements across the County.
- 2.5 It will help NCC to plan positively, effectively and creatively to ensure that there is adequate provision of accessible, high quality open space, sport and recreation facilities that meets the needs and aspirations of local communities and people who work in, or visit, the County, reflecting the important contribution made by playing pitches and other open space to the Sustainable Community Strategy's priorities and objectives.

The Difference between PPG17 and Green Infrastructure

- 2.6 The difference between PPG17 and Green Infrastructure in accordance with informal guidance provided by Natural England is that:
 - PPG17 is concerned with open space of public value and does not include private land that may serve a variety of other functions such as flood risk, wildlife habitat, historic or cultural interest, as such is fairly restrictive from a green infrastructure perspective.
 - PPG17 tends to consider greenspaces in isolation or by type and not as a connected network, connectivity being a key concept of Green Infrastructure. Green Infrastructure considers a broader range of greenspace types.
 - PPG17 has an emphasis on the 'type' of open space whilst Green Infrastructure has an emphasis on the multifunctional ability of space to address a variety of issues such as flood attenuation, climate change etc.
 - PPG 17 Assessments are part of the evidence base that support the broader remit of Green Infrastructure Planning. The Northumberland PPG17 Audit and Assessment will be used as part of the evidence base that supports this GI Strategy.
 - Green Infrastructure planning needs to consider the wider remit of landscape, biodiversity, cultural and heritage landscape and connectivity.

World Class Places

2.7 The Government published' World Class Places (2009)⁹. This outlines the Government's vision for improving the quality of both the built and green environment. The strategy outlines how the quality of place can significantly influence the quality of life, social cohesion, disorder and economic activity. The strategy outlines how and why it is so important to create well designed, functional spaces that make a positive contribution to an area and its sense of place. It therefore emphasises the important role green infrastructure has in achieving these aims.

⁸ PPG17 Planning for Open Space, Sport and Recreation (PPG17)

⁹ 'World Class Places' DCLG 2009

Regional Planning Policy

Regional Spatial Strategy for the North East (2008)

- 2.8 The Regional Spatial Strategy for the North East of England, (which still forms part of the statutory development plan following the ruling quashing the revocation), sets out a sustainable long-term vision for the development of the region and provides the regional framework for the determination of planning applications and planning appeals. It includes an undertaking to ensure that an improved environment is a high priority. (The coalition Government still plans to abolish the RSS through the Localism Bill).
 - Policy 2: Sustainable Development Planning proposals and Local Development Frameworks should support sustainable development. Sub-sections of this policy embrace environmental and social objectives.
 - Environmental objectives include promoting the concept of green infrastructure, with a network if linked multi-functional greenspaces in and around the Region's towns and cities.
 - Social objectives include improving health and well being and also ensuring good accessibility by walking and cycling as well as public transport.
 - Policy 8: Protecting and Enhancing the Environment Strategies, plans, programmes, and planning proposals should seek to maintain and enhance the quality, diversity and local distinctiveness of the environment throughout the North East by (inter alia):
 - Identifying and protecting existing woodland of amenity and nature conservation value, particularly ancient woodlands.
 - Encouraging and supporting the establishment of green infrastructure including strategic wildlife corridors.
 - Policy 9.6: Environment One component of this policy seeks to support the establishment
 of strategic networks of green infrastructure that link existing and proposed greenspace with
 green corridors running through urban, suburban and urban fringe areas to the countryside
 and coast.
 - Policy 24: Delivering Sustainable Communities Proposals should assess the suitability of land for development in relation to the potential contribution to reducing health & social inequality through the provision of accessible health, sports, community & recreational facilities, including suitable provision for play space, in new development.
- 2.9 In addition to the above policies 11.3c and 16 are highlighted as relevant to this work, and should be considered as appropriate.

Local Planning Policy

2.10 Full details of all local planning context is set out in Appendix 2. Of particular relevance to this GI Strategy, and the development of the Core Strategy and the LDF is the Northumberland Consolidated Planning Policy Framework (April 2009), and the recently adopted Northumberland Economic Strategy also summarised in Appendix 2.

Releasing the Strength of our Communities – A Sustainable Community Strategy for Northumberland to 2021

2.11 'The Strength of our Communities' provides the context for the developing local planning policy. The Sustainable Community Strategy sets out two fundamental principles. The first is recognising the importance of place. To improve the local quality of life, there is a need to focus on improving whole areas rather than just individual services. The second is working together in partnership. To improve

the local quality of life, there is a need to bring together and better align all activity to meet the needs of communities.

- 2.12 The Vision for the Sustainable Community Strategy is that by 2021, everyone in Northumberland will be able to:
 - Enjoy a good standard of living
 - Live safely and in comfort
 - Lead healthier lifestyles
 - Readily access the things they need
 - Take part in cultural activity
 - Care about our environment
 - Get involved and bring about change
- 2.13 Future provision of good quality open space, including playing pitches has a clear contribution to make to delivery and achievement of the Northumberland Sustainable Community Strategy.

Northumberland Consolidated Planning Policy Framework (April 2009).

- 2.14 The administration of the county of Northumberland has undergone transition from a county authority with six district councils to a single unitary authority. The dissolution of the former district councils in 2009 leaves the new unitary authority with a disparate range of policies from the extant local plans of each previous local planning authority, including the policies within the former County Council's own Structure Plan. These policies have been brought together to form the Northumberland Consolidated Planning Policy Framework. See Appendix 2 for details.
- 2.15 Whilst there is some commonality in the approach to green infrastructure there is also a lack of consistency, and some plans are more comprehensive than others. Moreover, only Blyth Valley had progressed the evolution of its own Local Development Framework (LDF) to a stage where development control policies have been through public consultation and the scrutiny / endorsement of an examining Inspector. The County Council, as the new unitary authority, is therefore in the process of bringing forward a comprehensive range of policies through its emerging Core Strategy and LDF.

Summary of Planning Implications

- 2.16 Deriving from the various planning policies summarised above, and covered in more detail in Appendix 2, there are a number of key planning implications relevant to future provision of GI in Northumberland. These include:
 - The clear prioritisation of the environment and its importance at local level, as part of a sustainable community infrastructure
 - The value of green space at local level, for a variety of functions
 - The opportunity to integrate development and enhancement of green infrastructure in the planning system at local level
 - The importance of enhancing and conserving landscapes for biodiversity, environmental, habitat creation and heritage interest

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- The opportunity to create landscapes which have integral flexibility to enable adaptation to climate change
- The role of green infrastructure in relation to sustainable transport routes
- The opportunity to consolidate planning policies of the former districts, and develop a comprehensive and integrated approach to the future provision of green infrastructure
- 2.17 The above clearly demonstrate and underpin the opportunity for future development and enhancement of new and existing green infrastructure across the County.

Northumberland Profile

Socio-Economic

- 2.18 Northumberland is England's most northerly county. The population of the County is 310,970 (Source: ONS, mid-year estimates 2007). A substantial part of the county's overall area is designated National Park and is managed by the Northumberland National Park under the remit of maintaining its cultural and physical heritage, with sustainable policies and creating a thriving community and economy. In broad terms:
 - The north of the county is open and sparse the principal towns of Alnwick, Berwick and Morpeth serve large catchments that are also partially influenced by both Edinburgh to the north and Tyneside to the south;
 - The west of the county is largely rural, but 'split' by major road and rail transport corridors running into Newcastle and Gateshead, with many of the communities characterised by an economic and cultural interdependence with the Tyneside conurbation; and
 - The south east corner of the county is compact coastal lowland intersected by several river estuaries, which has been substantially changed by extensive mining activity. It is distinctly built up with the county's largest settlements of Ashington, Blyth and Cramlington sited in protected corridors on the northern fringe of Tyneside. Many of the communities living in this area are characterised by high levels of deprivation following the decline of coal mining industries. South East Northumberland encompasses the former districts of Blyth Valley and Wansbeck and extends westward to include the market town of Morpeth and to the North into the former Rural Coalfield area and has been designated as Growth Point Status.
- 2.19 Northumberland County Council is the new unitary authority for Northumberland, which became effective from 1 April 2009. The new Northumberland County Council is made up of the six former District Councils Alnwick, Berwick-upon-Tweed, Blyth Valley, Tynedale, Castle Morpeth and Wansbeck. The County covers an area of 507,732 Hectares.
- 2.20 Northumberland has a rich and diverse history and industrial heritage, however the decline in traditional industries such as coal extraction has severely impacted on the economic prosperity of the County's local communities and has led to social, economic and health issues amongst these communities.
- 2.21 Settlement distribution in Northumberland has been established historically, due to key factors including access to transport and trade routes, topography, the presence of available resources and defence. As a result the settlement pattern focuses on the following areas:
 - The valleys of the River Tyne, River Till, River Coquet, River Aln, River Allen, River Tweed, River Wansbeck and their associated tributaries.
 - The Coast and Coastal Plain where the land was suitable for farming, the coast for fishing and where minerals where relatively easy to extract.

• The foothills and more sheltered areas of the North Pennines and Cheviot Hills.

Northumberland - Area Breakdown

- 2.22 For the purposes of local administration and planning Northumberland is considered to have three main areas based on demographic, geographic, cultural, and heritage differences, and the varying influence of their neighbouring communities. The areas are
 - North Area
 - West Area
 - South East Area
- 2.23 According to the Office of National Statistics the County's population has seen a 1.2% increase between 2001 and 2008 and a further 5% increase is predicted by 2018. There are a number of proposed developments that are planned as a consequence of NCC gaining growth point status for the South East area of the County. The population trends within the County also reflect the split between the more rural areas of North Northumberland which has a great appeal to second home owners and those seeking the more rural lifestyle and the more densely urban southern areas adjoining Tyneside and the City region around Newcastle.

North Area

- 2.24 The north of the county is distinctly open and sparse. Rich archaeological features reflect its troubled borderland past. The principal towns of Alnwick, Berwick and Morpeth serve large catchments that are also partially influenced by both Edinburgh to the north and Tyneside to the south. Many of the communities living in this area are characterised by physical remoteness and rural disadvantage.
- 2.25 The North Area is the second largest of the three areas covering 240,685 hectares. It has a population of 89,017 people. Compared with the county as a whole, the North Area has a lower proportion of children, a lower proportion of people of working age, and a higher proportion of people of retirement age and over. The main towns in the area are Amble, Berwick, Alnwick and Morpeth. Other key settlements are:
 - Belford
 Rothbury
 Seahouses
 - Hadston
 Wooler
 - Pegswood
 Widdrington Station

West Area

- 2.26 The West Area is the largest of the three Areas geographically, covering an area of 246,757 hectares. It has a population of around 75,000. Compared with the county as a whole, the West Area has a lower proportion of people aged 16 to 29, a lower proportion of people of working age, and an equal proportion of children.
- 2.27 The west of the county is distinctly rural, albeit split by major road and rail transport corridors running into Newcastle and Gateshead. The towns of Ponteland and Hexham are desirable places to live and visit, placing considerable demands on their services and infrastructure. Many of the communities living in this area tend to have an economic and cultural interdependence with Tyneside. The main towns in the area are Hexham, Prudhoe, Ponteland and Haltwhistle. Other key settlements are:

- Bellingham
 Allendale
- Corbridge
 Haydon Bridge

South East Area

- 2.28 The South East Area is the smallest of the three areas, covering 15,084 hectares. It has a population in the region of 147,500 the most densely populated are in Northumberland. Compared with the county as a whole, the South East Area has a higher proportion of children, a higher proportion of working age, and a lower proportion of retired people.
- 2.29 The southeast corner of the county is compact coastal lowland intersected by several river estuaries; its natural landscape has been substantially changed by extensive mining activity.
- 2.30 The county's largest settlements of Ashington, Blyth and Cramlington are sited in protected corridors on the northern fringe of Tyneside. Many of the communities living in this area are characterised by high levels of multiple deprivation following the decline of coal mining industries. Other key settlements are:
 - Bedlington
 Newbiggin-by-the-Sea
 - Ellington
 Seaton Delaval
 - Lynemouth
 Guidepost/Stakeford
- 2.31 Northumberland is ranked 87th most deprived County in England (1 is the most deprived and 149 is the least deprived). Northumberland is overall the least deprived County in the North East. At a local level:
 - Tynedale is the least deprived of the former districts in the region.
 - 18% of the Northumberland population live in the most deprived Super Output Areas in England.
 - Blyth and Wansbeck are the most deprived of the former districts in Northumberland.
 - Wansbeck ranks amongst the most deprived 50 districts in England 39% of Wansbeck's population live in the most deprived Super Output Areas in England.
 - Berwick-upon-Tweed has only 1 Super Output Areas amongst the least deprived 30% of Super Output Areas in England; all other districts have at least 3.
 - Castle Morpeth having 13 Super Output Areas is amongst the least deprived.
 - 30% of all Super Output Areas of Deprivation is concentrated in the more urban South East of Northumberland.
 - The exceptions to this are the Barriers to Housing and Services and Living Environment deprivation where deprivation is concentrated in the more rural parts of the County.

The Growth Agenda

2.32 The Government's vision for towns and cities is of prosperous and cohesive communities offering a safe, healthy and sustainable environment for all. A vital ingredient for sustainable communities is an adequate supply of good quality housing offering a choice of types and tenures, including affordable housing for key workers and those in lower income groups.

- 2.33 The former Labour government, through its Homes for the Future (2007) Green Paper, wanted to promote the fact that good quality housing is not simply reliant on the design of the buildings, rather it relies on integrating the design and layout of the built environment with the natural environment. As such development needs to consider the green infrastructure as a key mechanism to delivering environmental improvements and as such are central to developing sustainable communities as they enhance the opportunity for residents to have a good quality of life.
- 2.34 The Green Paper also identifies the opportunity to improve the urban rural fringe through the restoration and protection of the countryside, improving local access to nature and ensuring that green space is recognised as an integral part of the environment.
- 2.35 Applications were invited from local authorities with a predicted increase in housing of 500 new properties per annum; on 16 July 2008; South East Northumberland gained Growth Point Status as part of this initiative.

Health Profile

- 2.36 The health profile of people in Northumberland is similar to the England average. Levels of deprivation are lower than the England average. For men, life expectancy is similar to the England average; for women it is slightly worse than the England average.
- 2.37 There are however, inequalities within Northumberland. For example, life expectancy for men living in the most deprived areas is 8 years lower than for men living in the least deprived areas. For women it is 5 years lower. Over the last ten years, the death rates from all causes and early death rates from cancer and from heart disease and stroke have all improved and are similar to the England average.
- 2.38 The percentage of physically active children in Northumberland is higher than the England average. The percentage of mothers initiating breast-feeding is lower than the England average. The incidence of skin cancer and the rate of hip fractures in people aged over 65 are similar to the England averages.
- 2.39 The estimated percentage of binge drinking and the rate of hospital stays for alcohol related harm are higher than the England average. Tackling this is a priority. (Source: APHO and Department of Health, 2009).

Summary of Northumberland's Key Demographic Factors

- 2.40 The key population related factors impacting on, and influencing (quantity, nature, location) the future provision of green space and infrastructure are summarised below.
- 2.41 Ageing Population Northumberland's population is "greying" faster than that of England as a whole, and in some rural areas the balance has already shifted dramatically away from the pattern elsewhere for instance in the former Berwick district, it is estimated that over-50s will become the majority of the population. By 2021, all (former) districts in the County will have a higher proportion of over-85s than the English average, including Wansbeck (3.1%) and Blyth Valley (3.0%), which are expected to have the lowest proportions within the County.
- 2.42 **A Growth in the Elderly Population** A large proportion of the population is approaching retirement and services/facilities will increasingly need to take account of these demographic changes when planning, delivering and financing future priorities. This trend will have implications in terms of the demand for specific types of green space.
- 2.43 **Falling numbers of Younger People** As is the case across many parts of the country, Northumberland has a falling proportion of younger people, but this is exacerbated by the increasing older population. This will impact on the type and need for future greenspace.

- 2.44 **Population Density and Distribution -** Northumberland has a very low population density, except in the urban areas, and particularly the south east. The nature of the existing housing reflects this eg terraced housing with limited green space in some areas, and will impact on the level and nature of greenspace provision required.
- 2.45 **Deprivation and Health** some areas of Northumberland, particularly in the south east, suffer from a range of deprivation issues and are part of regeneration initiatives. The health of the community is less good in such areas, and therefore future provision of good quality, accessible green space is very important to promote healthier lifestyles.
- 2.46 It is crucial that there is a good distribution of different types of open space, outdoor sport and recreational facilities across the County in and around urban areas and the more remote rural settlements throughout the county. Good quality, accessible provision covering a range of local needs should be provided within rural areas, especially where there are limited public transport services.

Section 3 - Northumberland's Existing Green Infrastructure Assets



3 Northumberland's Existing Green Infrastructure Assets

Audit of existing Green Infrastructure Resources

- 3.1 The landscape of Northumberland is distinctive and one of contrast, varying from the rugged cheviot uplands and Pennines to the cliffs and open beaches of the east coast. There is a variety of farmlands, valleys and hills with rural and urban settlements and associated infrastructure woven in to the landscape. Northumberland also has the Northumberland National Park and two Areas of Outstanding Natural Beauty (AONBs) the Northumberland Coast, and North Pennines, contained within the County boundaries.
- 3.2 Northumberland is predominantly rural in character, with open countryside covering much of the county; this provides a valuable well-established network for local people. Unfortunately in parts this network has become fragmented and disconnected. Increasingly the County's Green Infrastructure assets face pressure from planned and proposed growth especially in the more densely populated South East with its growth point status.

Spatial Scales and GI assets for the Northumberland Green Infrastructure Strategy

3.3 It is important to recognise the different spatial scales of the County's existing GI assets and to reflect their importance at regional and sub regional-county scale. The assets have been classified in accordance with spatial scale and these are summarised by asset type below in Table 3.1.

Spatial Scale				
Regional	Sub Regional			
Nationally designated sites e.g. NNRs, SACs, Ramsars, SPAs, National Parks, AONBs, Heritage Coasts, Ancient Woodlands, World Heritage Sites	Significant or extensive public parks and gardens e.g. country parks, forest parks			
Major river corridors e.g. Tyne	Local Nature Reserves			
Coastline and beaches	Main river corridors and watercourses e.g. Coquet, Wansbeck, Blyth, Tweed			
Major recreational and amenity sites	Strategic recreational routes, pubic rights of way, cycle ways e.g. St Cuthbert's Way, Kielder Lakeside Way, South Tyne Trail			
Long distance footpaths e.g. Pennine Way National Trail, Hadrian's' Wall National Trail, Northumberland Coast Path	Local Wildlife and Geological Sites (SNCIs as was)			
National Cycle Network and SUSTRANS routes	Northumberland Wildlife Trust Nature Reserves			

Table 3.1: Northumberland Green Infrastructure Assets

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Spatial Scale			
Regional	Sub Regional		
e.g. Coast and Castles cycle route (National Route 1), Rivers Cycle Route (Regional Route 10)			
Major roads and railways (including minerals and disused railway lines/wagonways)	Significant archaeological and historic sites		
Registered Parks and Gardens e.g. Wallington Hall, Cragside, Belsay Hall			
Registered Battlefields e.g. Battle of Flodden Field, Battle of Halidon Hill, Battle of Homildon Hill and Battle of Otterburn			

- 3.4 The features and character of the landscape contribute to the quality of people's lives; landscape and historic landscape character is therefore important in the consideration of GI networks.
- 3.5 In order to plan and develop policies for the protection, enhancement and improvement of existing green infrastructure, it is essential to identify the extent of the existing green infrastructure asset in Northumberland. In order to do this and to undertake analysis of provision it is necessary to subdivide the existing resource into thematic or geographic components.
- 3.6 The audit of the existing Green Infrastructure has been divided into two categories. Firstly the Natural Systems (the landscape character and water processes) resulting in the current landscape and biodiversity that have formed through time as a result of human and natural action and interaction. The second category is the human impact and influence on the environment.

Natural Systems

Landscape Character

3.7 Towards the end of 2009 NCC commissioned a Landscape Character Assessment (see Map 2) by environmental consultants Land Use Consultants (LUC); the findings are summarised in Table 3.2.

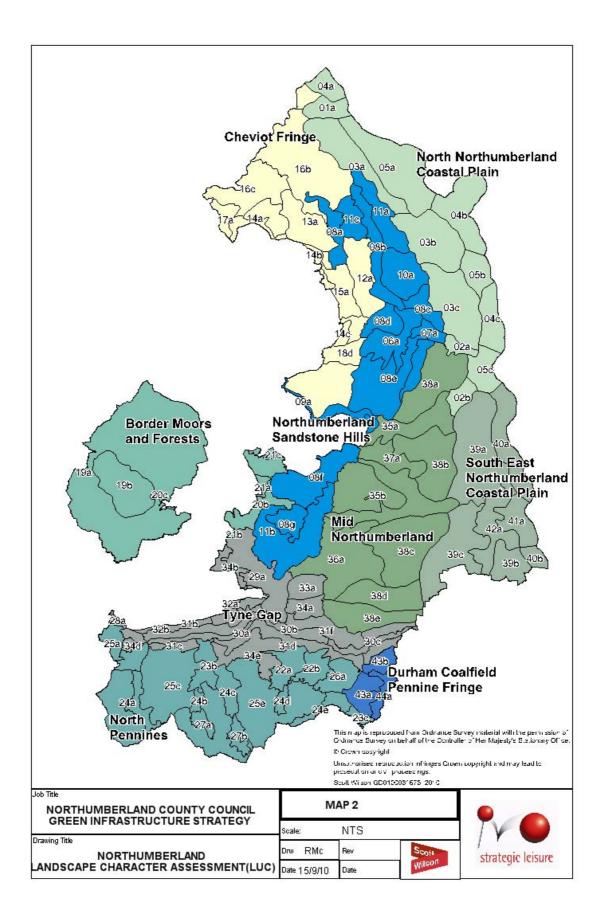


Table 3.2: Northumberland Land	dscape Character Areas
Landscape Character Classification	Description
NCA 1: NORTH NORTHUMBERLAND COASTAL PLAIN	Occupying a broad band along the North Sea coast and stretches from the northern Anglo-Scottish border to the mouth of the River Coquet in the south. It includes the Northumberland Heritage Coast and Northumberland Coast AONB, (including Holy Island and the Farne Islands). Large areas are designated for nature conservation interests. Berwick-upon-Tweed is located in the north of the area, with Alnwick and Amble on the southern edges.
NCA 2: NORTHUMBERLAND SANDSTONE HILLS	This NCA overlaps with the Northumberland National Park around Simonside Hill and Harwood Forest. Extending in a wide north-south arc that separates the uplands and farmland of the Cheviot Fringe (NCA 3) to the west, from the agricultural lowlands and coastal plain to the east. This plateau landscape is covered mainly improved pasture or moor, with several areas of distinctive rocky hills, which are often more prominent from the west due to their geological formation.
NCA 3: CHEVIOT FRINGE	A landscape of rolling farmland and broad valleys that occupies a belt of lowland wrapping round the Cheviot Hills, and separating them from the Northumberland Sandstone Hills (NCA 2) to the east. Further north the area broadens out towards the coast, and merging with the drumlin farmland of the Scottish Merse across the River Tweed.
NCA 5: BORDER MOORS AND FORESTS	This extensive upland plateau, dominated by coniferous woodland, is located in the Anglo-Scottish border country and is centred on the man-made Kielder Water. To the south-west it drops down towards Cumbria and the Solway Basin, and to the south it is defined by the Whin Sill scarps running along the Tyne Gap (NCA 11). To the east are the Northumberland Sandstone Hills (NCA 2). Much of the eastern part of this NCA lies in Northumberland National Park and is excluded from this study. The western part forms the isolated western segment of the study area, while the NCA extends further westwards into Cumbria
NCA 10: NORTH PENNINES	The North Pennines NCA is located towards the northern end of the Pennine chain and forms a separate and distinct area of upland moor and dale south of the Tyne Gap (NCA 11), characterised by some of the highest and wildest moorland summits in England, and dissected by dales radiating north and east. Nearly all of this NCA is part of the North Pennines AONB, and it extends west into Cumbria and south into County Durham.
NCA 11: TYNE GAP	This narrow but distinctive lowland corridor, centred on the river Tyne, separates the North Pennines from the Border country. To the west lie the pastoral landscapes of the Solway Basin; to the east are the more densely populated Tyne and Wear Lowlands. Most of this NCA is within the study area, although it extends some way into the

Fable 3.2: Northum	berland Landsca	pe Character	Areas

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Landscape Character Classification	Description
	Northumberland National Park in the north-west. Much of Hadrian's Wall, for example, falls outside the study area.
NCA 13: SOUTH EAST NORTHUMBERLAND COASTAL PLAIN	This area covers a broad strip of the North Sea coast, and occupies the easternmost part of the study area. It stretches from Amble in the north to the southern edge of the study area, where it extends into Newcastle and North Tyneside. The coastal plain widens towards the south, taking in the developed areas around Ashington, Blyth, and Cramlington. Morpeth and Ponteland are located on its western boundary
NCA 16: DURHAM COALFIELD PENNINE FRINGE	This rolling, large-scale low upland landscape lies to the east of the North Pennines (NCA 10), dipping down gently eastwards to the heavily settled lowlands of the Tyne and Wear valleys. A mainly rural landscape, it is heavily influenced in places by urban and industrial development and mineral working. Only a small part of the north-west of this NCA lies within Northumberland.

(Source: LUC Landscape Character Assessment 2010)

- 3.8 Northumberland is classified into a number of landscape types in accordance with Natural England's Natural Character Assessment Landscape types. The Landscape Character Assessment identifies that such boundaries have to be seen as notional, and a snapshot in time as character changes gradually across the landscape.
- 3.9 The assessment recognises 44 distinct landscape character types and 100+ character areas across Northumberland and its sub region, including the Heritage Coast, and the two AONBs – the Northumberland Coast and the North Pennines. Map 4 shows the Northumberland landscape designations.
- 3.10 The landscape character assessment looks at the open and built-up parts of the landscape; it identifies the distinctive and locally important spatial settlement patterns and land use elements and features that make the county unique. The Northumberland National Park is not considered in any great detail as it is a separate planning authority and therefore planning policies will differ.
- 3.11 The main issues, gaps and opportunities arising from the recognition of the landscape character significance are summarised in Table 3.3.

Table 3.3: Landscape Character – Issues, Opportunities, Gaps

SS	sues	Ga	ps	Ор	portunities
•	 The need to recognise the elements of the landscape that are valued by local people. The need to protect local distinctiveness and to maximise the opportunity to enhance and conserve the character of the county. To avoid generic or homogenous management and planning policies that fail to protect or enhance the landscape at all levels. Resolving conflicting aspirations as to how the landscape should be managed or used and to ensure that these do not further erode or affect the quality and character of the landscape in Northumberland. To measure and monitor the rates of change in quality and character across the landscape and to be in a position to make informed decisions as to how the landscape will adapt or be affected by new uses or changes. 	•	There is a fundamental gap between the value of landscape setting and the locations of planned residential, business enterprise developments; ideally residential areas should be planned and developed in areas where there is existing good quality green infrastructure, or where there is good access to such. There needs to be careful consideration of the individual and cumulative impacts of different categories of planned sustainable power on the wider landscape and its associated green infrastructure. There is a lack of connectivity between sites of intrinsic landscape importance and the wider countryside. The South East Northumberland Landscape needs ongoing action to improve the quality of the landscape.	•	To use the landscap as a means of engaging partners, stakeholders and th public in future plac shaping and decisio making. To develop policies that secure, protect and continue to enhance the County areas that are recognised for their outstanding natural beauty (both AONBs and sites without th formal designation). To further protect elements and featur of the landscape tha are integral to the
•	The Landscape Character Assessment should be used as a baseline on which further study and assessment can be built especially where there is a clear contrast between urban and rural areas. Additional study will help inform if a proposal is	•	There needs to be a co-ordinated approach to landscape character and the regional climate change adaptation strategy.		traditional agricultu heritage and rural distinctiveness of th County.

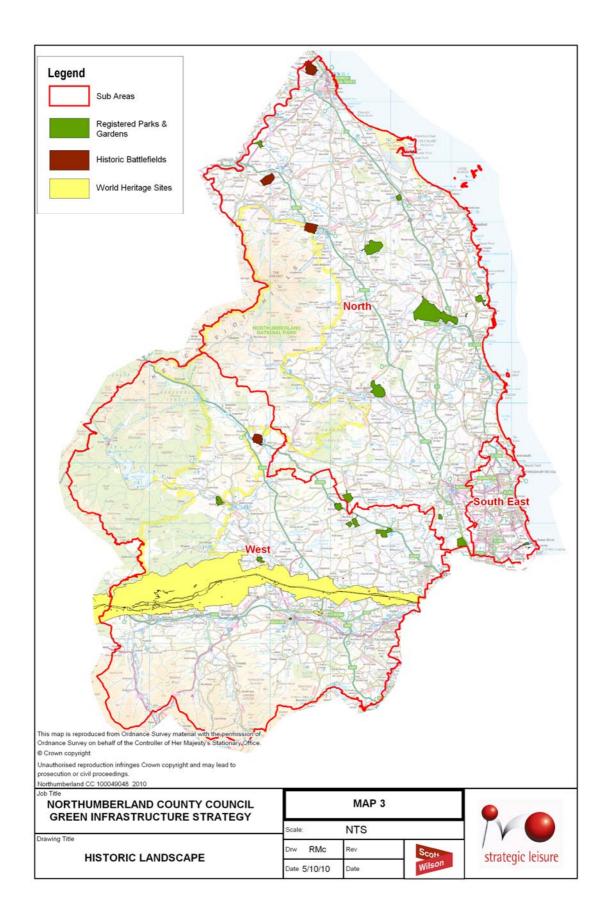
ssues	Gaps	Opportunities
 going to have a positive or negative effect before a decision is reached. Anticipated high levels of demand for the National Park and AONB experience. The County's woodlands are in the main coniferous plantation which now form an integral element of the landscape character; therefore any clear felling or reintroduction needs careful consideration. There needs to be consideration of the tranquillity the landscape of the county provides, and how this can best be protected and enhanced. 	There are not enough good quality local green space sites.	 To develop policies and management decisions that reflect the fact that all landscape types matter. To use the Landscape Character to identify, protect and create visual and cultural landscape features that reinforce the local distinctiveness of the County while also providing the setting or reference point on which new developments and settlements are modelled. To use the landscape character as a means to inform and guide future adaptation to climate change, such as identifying the possible locations for woodland creation or

Landscape Character			
Issues	Gaps	Opportunities	
		 wetland recreation. To continue to use the Landscape Character Assessment Study to inform the management and provision of Gl assets that recognise the importance of landscape character. Demand placed on designated sites could be alleviated though the improvement of local sites. 	

- 3.12 In the case of the South East Northumberland growth point the location of proposed development will be crucial to ensure minimum impact on the quality of the landscape, habitat and heritage interest of the area. It is generally envisaged that new developments or changes in land use will lead to improved landscape character, local distinctiveness and diversity and that the type of Green Infrastructure improvements will build on the defined local landscape character of the area. As such it will look to improve woodland cover created as part of the regions Coalfield regeneration and to protect and improve habitat such as the extensive dunes systems along the east coast whilst protecting the open views and wilderness of the north and west.
- 3.13 The key objectives will be to:
 - Protect and enhance Northumberland's uniquely diverse and distinctive landscape character.
 - Maintain and improve the character of the built environment in both urban and rural settlements to ensure the County sense of place is enhanced and protected.

Historical, Archaeological and Cultural Landscape

3.14 Northumberland is rich and diverse in its archaeological and historical features (see Map 3). These vary from the internationally important World Heritage Site of Hadrian's Wall, and the nationally important historic battlefields of Flodden or the Berwick Battery, to the locally important fish bait pots, brat holes and fishing huts along the Northumberland coast. The range of historical and cultural resources across the County are evident through the many earthworks, battlefields, buried assets, buildings and structures, disused rail and mineral lines that combine with the array of land use patterns that are linked back to numerous time periods throughout history.



- 3.15 There is a real and close affinity between green infrastructure and the historic environment. Green Infrastructure often provides the space or setting and therefore influences the historic and landscape character of an area. It provides the essential multifunctional space or backdrop such as historic parkland, battlefields and listed gardens; it can also provide the protection as part of new development to important sub ground level artefacts and important archaeological resources.
- 3.16 The following designations are an indication of the importance and heritage of the County at both regional and sub regional levels:
 - **Scheduled Monuments** there are in excess of 900 Scheduled Monuments recorded in the county and these include Ancient Settlements and Burial Mounds.
 - Listed Buildings there are in excess of 5500 Listed Buildings that include Castles, Churches, Halls and Farm Buildings.
 - **Battlefields** there are Recorded Battlefields in the County these include the Battle of Flodden, Halidon Hill, Homildon Hill, and Otterburn.
 - **Registered Parks and Gardens** there are 18 in the County these include Cragside, Wallington, Howick Hall, Seaton Delaval Hall and Belsey Hall. Many of these being in private ownership and play an important tourism role.
 - World Heritage Site Hadrian's Wall World Heritage Site which passes through the County.
- 3.17 Northumberland's unique, diverse and distinctive historic environment is a physical record of human activity that spans the centuries. The historic environment reflects the pattern of urban development; it is the towns and villages that make up the landscape, it is the buildings and the archaeological features including key characteristics such as medieval earthworks, Roman settlement and prehistoric artworks, it is the large country estates, historic parks and gardens, railways, battlefields and historic field patterns.
- 3.18 At regional level the County has a network of historic routes including Roman roads, disused rail and mineral lines, tracks and paths. The historic land use and enclosure patterns are still evident and contribute a significant part of the local distinctiveness of Northumberland.
- 3.19 Northumberland also has a legacy of industrial heritage especially of the coal extraction in the more dense urban areas of the south east. Here more than anywhere the legacy of the industrial past has changed the landscape and the introduction of woodland reclamation schemes are prevalent and provide important links for local people in terms of recreation and open space.
- 3.20 The principal issues in relation to the historic, archaeological and cultural environment are summarised in Table 3.4.

Table 3.4: Historic, Archaeological and Cultural Environment – Issues and Opportunities

Historic, Archaeological and Cultural Environment

lss	Issues		Gaps	
•	To ensure that the Historic, Archaeological and Cultural Environment is not considered as a constraint on development but is seen more as a driving factor and that the historic legacy is a means to enhancing the past through new development. To preserve the historic and archaeological	•	There is a need for wider recognition of the role and function of non designated sites. There needs to be greater protection and enhancement of designated and non designated historic, archaeological and cultural assets.	Using the interaction between the historic environment and patterns of human development as a strategic driver for change to ensure ongoing robustness
	environment in a way that records its value and context and ensures it is properly understood.	•	There is an equal need to protect and enhance the local setting of historic, archaeological and cultural assets.	 between cultural and social structure. To ensure the County
•	To achieve an appropriate balance between development of both residential and commercial estates and the historic environment especially on the edge of settlements and also in areas that border the National Park and the County's Areas of Outstanding Natural Beauty.	•	There is a need to ensure that all Historic Parks and Gardens both registered and non registered are well managed and maintained to provide maximum benefit to wildlife and people.	 continues to be recognised for its significant historic and cultural profiles. To allow people to closely interact with their cultural and historical
•	To recognise and preserve historic assets through an understanding of their historic boundaries and the importance of the space around them as an important contributor to their value and interest. To preserve the traditional patterns of	•	There is a need to recognise the County's historic urban character when planning development or change. The need to recognise the benefit of managing the balance between the natural and historic environment and preventing the preference for one over the	heritage by making sites more accessible and in doing so promoting healthy lifestyles through interaction with the natural environment.

Issues	Gaps	Opportunities
enclosure and land uses which contribute significantly to the local distinctiveness of the County and the sub regions. This is important not only from the historic perspective but also as a means of protecting valuable habitat and important landscape features.	other to ensure a sustainable future for the legacies from the past. There is a need to link the Historic Landscape Strategy to the NCC Climate Change and Tourism Strategies. 	 To use the historic settlement patterns as a means to inform future management and land development, using lessons learnt to avoid future errors in judgement. At the sub regional level to ensure that historic connection and transporroutes between settlements are enhanced and preserved. This will not only secure the County's heritage bualso allow the opportunity for movement of people and wildlife. To protect distinct historic land use patterns for example the large country estates and ancient semi

Issues	Gaps	Opportunities
		 woodlands. To use the historic patterns in settlements to inform future development and to ensure that open space and green infrastructur are protected and enhanced regardless of ownership.
		To consider listed and important buildings in the context of their wid setting and the impact any development may have in terms of reduce landscape value or disruption to wildlife.

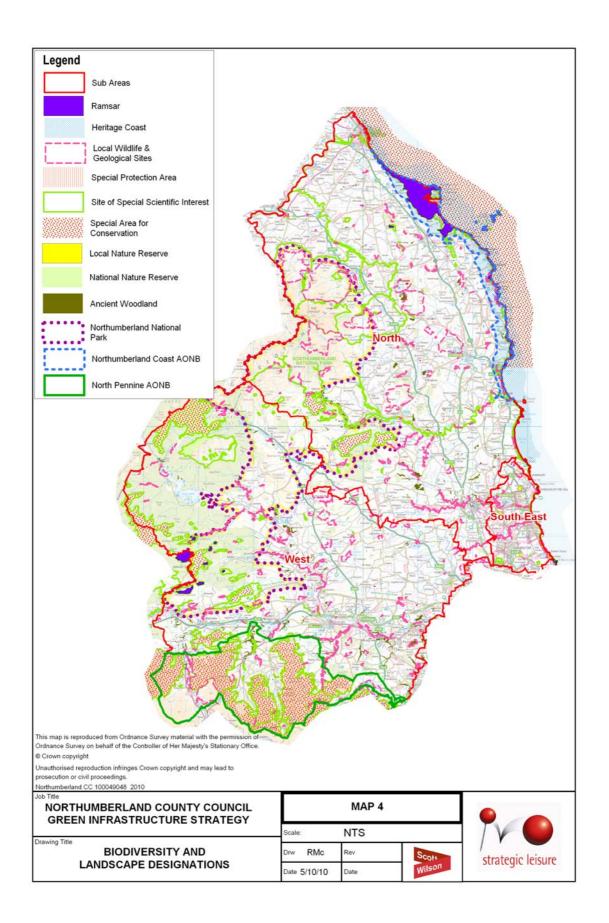
- 3.21 The key objectives will be to:
 - Enhance and protect the regions historic, archaeological and cultural environment.
 - Protect and appreciate the importance of the space and setting of the County's historic, archaeological and cultural assets.

Biodiversity and Natural Environment

3.22 Northumberland's rich and varied landscape supports a wealth of wildlife, habitats and species diversity (see Map 4). There are numerous recorded rare species of plants and animals that are also amongst the rarest in the UK. An important focus of the Green Infrastructure Strategy will be to ensure that the county's existing biodiversity resources are conserved and protected as part of the planning process.

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- 3.23 The term biodiversity refers to the variety, number and combination of life forms across the county. All forms of green infrastructure can provide opportunity to enrich the County's biodiversity, to support species migration and movement and can provide the important conditions for rare species to establish and thrive.
- 3.24 Biodiversity is recognised within this strategy as an important and valuable resource, as such future planning policy will consider the need to help improve the management and maintenance of the existing biodiversity resource and to support the expansion of habitat to ensure species are protected. This will help to ensure through appropriate planning processes that biodiversity resource is fully integrated as part of any proposed or planned land-use change, that it can adapt to climate change and is fully considered as part of any proposed development.
- 3.25 Green Infrastructure will provide a network of high quality countryside that allows people access to, and enjoyment of, the natural environment.
- 3.26 Government policy PPS9 (Biodiversity and Geological Conservation) identifies the importance of the provision of networks of natural habitats and the function and role they play in the conservation of biodiversity. The guidance states that local authorities need to ensure that they avoid the fragmentation and isolation of habitat networks and that they should be working towards strengthening and protecting these spaces and associated species by integrating habitat into the very fabric of planned development.
- 3.27 The Northumberland Biodiversity Action Plan 'Working with Wildlife' has been developed through the Northumberland Biodiversity Partnership. Further detail on the partnership can be found at <u>www.northumberlandbiodiversity.org.uk</u>
- 3.28 The Northumberland Biodiversity Action Plan identifies the species and habitats for which action plans have been prepared that are integral to the uniqueness or local character of Northumberland. These are identified in Table 3.5 overleaf:

Table 3	3.5: Priority species and habitat Blanket Bog	s for which Action Plans have been Lowland Meadows & Pastures	orepared Saline Lagoons
	Brownfield Land	Maritime Cliff and Slope	Saltmarsh and Mudflat
	Built Environment		
S	Calaminarian Grassland	Native Woodland	Sand Dunes
Habitats	Coastal Heathland	Ponds, Lakes and Reservoirs	Transport Corridors
На	Fen, Marsh and Swamp	Recreational & Amenity Space	Trees and Hedges
	Gardens and Allotments	Reedbed	Upland Hay Meadow
	Heather Moorland	Rocky Shore, Reefs & Islands	Whin Grassland
	Lowland Heathland	Rivers and Streams	
	Barn Owl	Freshwater Fish	Red Squirrel
	Barn Owl Bats	Freshwater Fish Freshwater Pearl Mussel	Red Squirrel River Jelly Lichen
(0			
oecies	Bats	Freshwater Pearl Mussel	River Jelly Lichen
Species	Bats Coastal Birds	Freshwater Pearl Mussel Garden Birds	River Jelly Lichen Upland Waders
Species	Bats Coastal Birds Common Seal	Freshwater Pearl Mussel Garden Birds Great Crested Newt	River Jelly Lichen Upland Waders Violet Crystalwort

3.29 Within the County there is broad range of designated sites that are not only important at the local level but also on a regional, national and international scale. These include:

- Northumberland National Park extending over 100,000 hectares (405sg miles) and containing some 31 SSSIs, 6 Special Conservation Areas, 3 National Nature Reserves and 2 Ramsar Sites.
- Areas of Outstanding Natural Beauty (AONB) There are 2 AONBs, the North Pennines, lying partially within the county boundary and the Northumberland Coast. Both contain a host of designations including 5 National Nature Reserves (NNR), including Moor House, Lindisfarne, the Farne Islands and St Abbs Head, 9 Special Conservation Areas (SAC), 5 Special Protection Area (SPA), and 16 Sites of Special Scientific Interest.

- **Sites of Special Scientific Interest** (SSSI) There are 114 SSSI's providing approximately 57,394ha of protected habitat. 71% of the County's SSSI being in the West Area.
- **Special Areas of Conservation** (SAC) are protected under the European Union's Habitat Directive and include the Intertidal mud and sand flats at Holy Island, the shallow inlets and bays at Budle, Beadnell and Embleton Bay. They also include Reefs and Submerged Sea Caves such as those found around Berwick, Howick and the Farne Islands.
- **Special Protection Areas** (SPA) There are 6 SPAs and the majority are in the North of the County in recognition of the extreme importance and function of the coastal zone as key habitat for resident and migratory birdlife. The other key area is the North Pennines.
- National Nature Reserves (NNR) There are 9 NNRs providing over 9000ha of protected habitat. The largest sites are Kielder Head in the West of the County (3,801ha) (the NNR is an extensive tract of moorland that exhibits a wide range of upland ecosystems including rock outcrops, mire systems and wooded ravines and small valleys), and Lindisfarne in the North (3408ha). The NNR at Lindisfarne is a combination of sand dunes, dune slacks, coastal grassland, saltmarsh and tidal mudflats along the Northumberland coast from Cheswick Black Rocks to Budle Point, the two sites combined provide over 78% of the total NNR provision in the County. The smallest site is Newham Bogs at 13.51 ha; it has very limited access due to the environmentally fragile habitat.
- **Ramsar Sites** there are 4 key areas designated as a Ramsar Site (Holburn Lake and Moss, Irthinghead Mire, Lindisfarne and the Northumbrian Coast.
- Local Nature Reserves (LNR) There are 28 LNRs in the County primarily located in the denser urban areas, which provide access to nature for local people. Sites include Choppington Community Wood and Bedlington Country Park.
- Ancient Woodland these are the woodlands in the county that have existed since 1600AD. There are 2738ha of semi –natural ancient woodland and 2108 ha of planted ancient woodlands. The primary woodland type in Northumberland tends to be non-native coniferous plantation.
- **Green Belt** these areas were designated in the 1960s to provide depth to the outer boundaries of Tyne and Wear. The Greenbelt also affords protection to more rural character of the historic towns of Hexham and Corbridge.
- Sites of Local Wildlife and Geological Interest there are approximately 221 sites that are considered to be of non-statutory nature conservation interest. The majority of these sites are located in the North and West of the County with the more densely populated urban area of the South East only having 13 sites.
- 3.30 The diversity of habitat and landscape across Northumberland helps shape the sense of place and character of the county as a whole. The County boasts a wealth of statutory and non statutory designated areas and networks of sites and habitats that serve as key ecological assets.
- 3.31 The sphere of influence over the natural environment in Northumberland is wide and diverse with numerous agencies, governing bodies, private enterprise and the voluntary sector all working to improve the natural environment, habitat and wildlife value. As such the level and extent of management, availability of resources including investment, staffing and maintenance are also diverse and varied. Whilst fragmentation still exists, the work of the agencies has led to good work being undertaken to improve and enhance the biodiversity across the county. As a result NCC and its partners are making great inroads into improving the natural resource but much more needs to be done especially to improving the quality of sites at the local level. The evidence of this is included in the NCC 2011 PPG17 assessment and extensive site audit.
- 3.32 The main issues and opportunities in relation to biodiversity are summarised in Table 3.6.

Table 3.6: Biodiversity – Issues and Opportunities

Biodiversity		
Issues	Gaps	Opportunities
 To ensure that any development enhances and improves the connectivity and quality of the county's biodiversity value. 	 There is a need to address and reverse the fragmentation and deterioration of habitats across the county. 	 To develop a framework that supports the Biodiversity Partnership and species related action plans.
 To ensure that land use policies both now and in the future have the flexibility to allow for species and habitat adaptation as a result of potential climate change. 	• There is a need to recognise that biodiversity is present across the whole county and is not restricted to the designated, protected sites,	 To extend the opportunity to lin sites of international and national importance and larger scale habitats to the smaller
 To ensure that the integrity and significance of the county's best and most valued biodiversity assets are enhanced, protected and improved. 	 priority species or habitats. There is a major gap in the level of management knowledge and 	 scale sites or areas. To establish multifunctional wetland systems that will
 Ensuring that long term, large scale biodiversity projects deliver significant benefits to the region and beyond. 	resources available for designated sites compared to non designated sites.	support improved wildlife and habitat diversity whilst helping combat the predicted effects of climate change.
 To identify and ensure the measures and mechanisms that will deliver enhancement and protection to the range of biodiversity assets and at all scales are at the forefront of planning policy. 	• The approach to biodiversity and planning has in a number of instances been piecemeal and adhoc not considering the wider implications and impact.	 To share the knowledge and expertise associated with the management of internationally and nationally important sites to the smaller more local areas and
 To support the continued co-ordination between the many active partners and stakeholders with and influence over the county's biodiversity and habitat value. 	 There is a marked variation in the approach to sustainable management and maintenance of habitat. 	habitats as a means of increasing the biodiversity resource across the County.
 Climate change and development will affect 		

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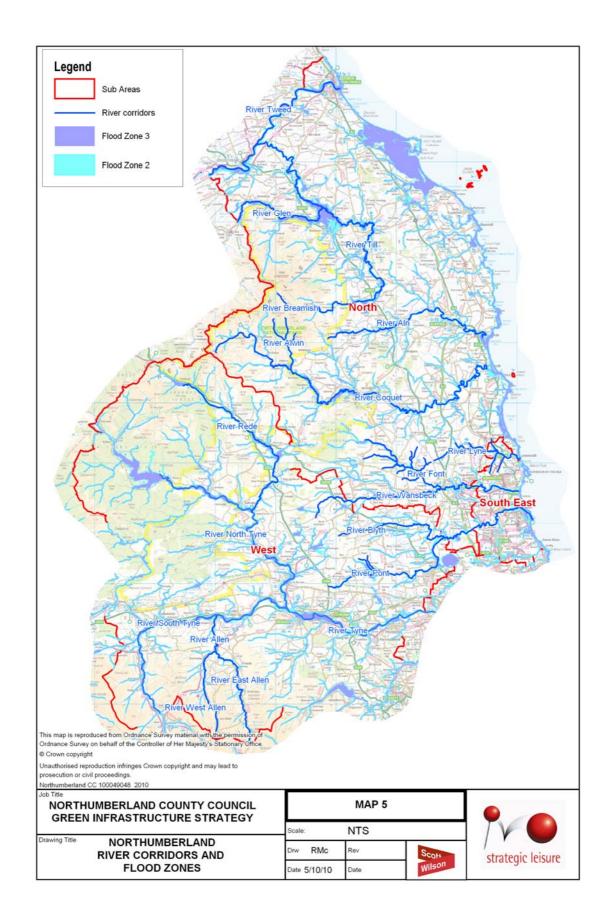
Biodiversity			
Issues		Gaps	Opportunities
biodiversity.	• 1 • 1 • 1 • 1 • 1 • 1 • 1 • 1 • 1 • 1	There are areas of the County where the fragmentation and connectivity between habitats needs significant and careful consideration to redress gaps in he network. The value of brownfield sites as valuable wildlife habitat needs careful consideration and further assessment. There are big gaps in the provision of site management blans that clearly identify the uture actions and potential for each site. The quality of local sites needs to be improved.	 To enhance existing or to creat new corridors including transport links for net biodiversity gain. To provide more local nature reserves and local sites of conservation and wildlife interest. To create green bridges to link areas fragmented by physical barriers such as the road and railways networks. To enhance and reinforce sites that are of local importance or distinctive habitat especially where they support locally important species. To develop a network of sites
	S	specific management plans for ocal sites of wildlife interest.	and habitats that are readily accessible and provide a valuable educational,
	c	There is data available on the colonisation of new species or the extinction of others but it requires	interpretive resource.To improve the value of existing
	a	a co-ordinated approach and nterpretation.	 To improve the value of existing greenspace for wildlife and biodiversity through better

Biodiversity		
Issues	Gaps	Opportunities
	There is data available on the opportunity for local sites to mitigate the pressure on the National Park, AONB and sensitive habitats, but it requires a co- ordinated approach and interpretation.	 management understanding of the regimes required to promot sustainable ecologically rich habitats. This will include introduction of new species and features to allow greater specie diversity. To ensure that Northumberland is recognised as an exemplar through the adoption and implementation of best practice with regards to the managemen of the green environment. Implications to maximise the opportunity for new development to enhance and enrich the existing landscape and natural environment, and secure features that are complimentary and provide improved connectivity between existing and new habitats and sites.

- 3.33 The key objectives for biodiversity are to:
 - Conserve, improve and enhance habitats in accordance with the County's Biodiversity Action Plan and individual Species Action Plans.
 - Improve the connectivity of habitats at all levels, designations and scales.
 - Develop alternative destinations for recreation and to provide new habitat sites.

Water Environment

- 3.34 In 2008 Northumberland suffered a series of floods caused by excessive rainfall that affected Morpeth, Rothbury and River Till catchment. The Rivers Glen and Beamish changed their course and at various locations throughout the county, roads and rights of way were damaged quite significantly due to landslides and flooding.
- 3.35 The 2008 floods need to be kept in context along with flooding that occurred in the county at Ponteland in 2000, Cramlington and Alnwick (2006), Tyne Valley (2007) and Belford (2007). According to the Environment Agency Flood Risk Maps for Northumberland there are parts of the county which are at relatively high risk of flooding in the future. This also includes coastal areas through increased risk of tidal flooding caused through increased sea levels and storm surges as a result of predicted climate change.
- 3.36 As a result and in an attempt to understand and respond to the potential risk of flooding and predicted climate change NCC has commissioned a county wide strategic flood risk assessment that will sit alongside this Green Infrastructure Strategy and will be used by the county to inform the subsequent planning policies and reduce the opportunity for flood risk in the future whilst improving and enhancing the watercourse assets.
- 3.37 The river corridors are an important part of the County's green and blue infrastructure (see Map 5) serving as a means of managing flood risk through the provision of space to hold, store and allow water to disperse.



- 3.38 The heavily wooded river valleys, the river flood plains and wetland areas also have the capacity to slow water flow down, dissipate water speed and slow down the rate of run off thereby reducing the potential for flooding down stream in the more developed and often dense residential areas.
- 3.39 The main river corridors, expanses of open water and wetlands are also an important recreational, ecologically diverse resource.
- 3.40 The Environment Agency produced a Corporate Strategy (2006)⁶ Creating a Better Place⁷ 2006-2011 in which they identify the general aim of helping to provide better places through flood defence by:
 - Creation of greenspace
 - Conservation of habitat
 - Enhancement of biodiversity
 - Provision of better recreational spaces
- 3.41 The quality of Northumberland's water is generally good, and continues to improve. In 2009, all of the County's bathing beaches exceeded EU guidelines for water quality. Cresswell Dunes and Foreshore achieved a Quality Coast Award in 2011.
- 3.42 Maintaining and improving the water quality of the county's rivers, streams, ponds and lakes will be a key objective in the implementation of this green infrastructure strategy. This will ensure that the water quality meets the European Union's Water Framework directive and that targets are set for future improvement.
- 3.43 The principal water assets are shown below in Table 3.7:

Table 3.7: Principal water Assets			
River Aln	River Font	South Tyne	
River Alwyn	River Glen	River Till	
River Blyth	River Lyne	River Tweed	
River Breamish	River Pont	River Wansbeck	
River Coquet	North Tyne	River West Allen	
River East Allen	River Rede	Wooler Water	

Table 3.7: Principal Water Assets

- 3.44 Kielder Water, Catcleugh and Derwent Reservoirs are significant water bodies that provide a major tourism and recreation resource for the County as well as serving a key water retention and storage function.
- 3.45 The South East of the County has subsidence ponds that have developed as a result of surface collapse caused through the extensive underground mining. Many are thriving wildlife colonies for both aquatic and marginal plants and consequently rich in invertebrates. They also offer important nesting and roosting for birdlife.
- 3.46 The main issues and opportunities in relation to the water environment are summarised in Table 3.8

Table 3.8: Water Environment – Issues and Opportunities

Water Environment		
Issues	Gaps	Opportunities
 To understand that the hydrology of the county sensitive system that is finally balanced and of unpredictable as such the main rivers and streachave finite limits with regards water quantity and also water quality. The network of rivers, streams and open water make a significant contribution to the County's local distinctiveness and have played a major r in determining the historic and cultural distribution of settlements in the County. To realise the contribution the County's water courses and water bodies make in creating opportunity for ecological diversity and wildlife movement through the provision of valuable habitat and by serving as a means of connecting one habitat with another. 	 en placed on the hydrological resource within the county. The need to manage the impact and risk of flooding in and around settlements. There are significant gaps in the accessibility of the river corridors to local people, in parts this is due to the physical terrain, in others it is ownership or responsibility. There needs to be further work to gauge the extent and range of 	 To implement the findings of the County's Strategic Flood Risk Assessment and ensure that the water environment plays a major role in supporting and enriching biodiversity. To ensure that the County can provide a sustainable water supply to serve the growing population whilst also meeting the demands of industry and agriculture. To manage and improve the opportunities presented through the principal water bodies and river corridors as valuable recreational resources.
 To address the fragmented accessibility along river banks and provide improved connectivity allows people to walk and cycle. 		 To ensure that the water environment is recognised for its ecological and recreational
• To meet the requirement of the Water Frameword Directive.	 There is a need to develop examples of best practice in the sustainable management and maintenance of the water environment. 	 importance whilst also continuing to improve the water quality. To improve and enhance the

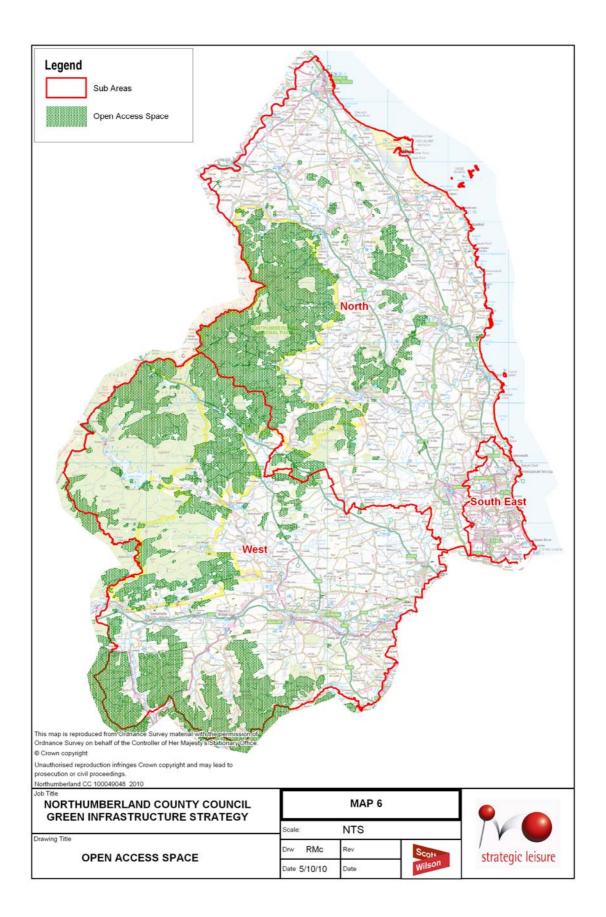
Issues	Gaps	Opportunities
	There is a need to protect and enhance the County's water environment, which in the main, is good.	 accessibility to local water courses whilst also preserving the local landscape character. To ensure that land management schemes seek to provide opportunity for sustainable drainage schemes and contribute to the management of flood risk. To develop habitats through embankment and wetland improvements that encourage biodiversity. To enhance the use of the county's water environment as an educational, cultural and interpretive resource. Water retention through new an existing development will help alleviate flooding by the creatio of sustainable urban drainage systems.

- 3.47 The key objectives for water environments area to:
 - Manage the risks and impact of flooding.
 - To manage and improve opportunities for water environments to contribute to bio-diversity, and provide a recreational resource, as well as sustaining the requirements of the county's agriculture and environment.
 - To provide a sustainable source of water.

Human Systems

Access Corridors

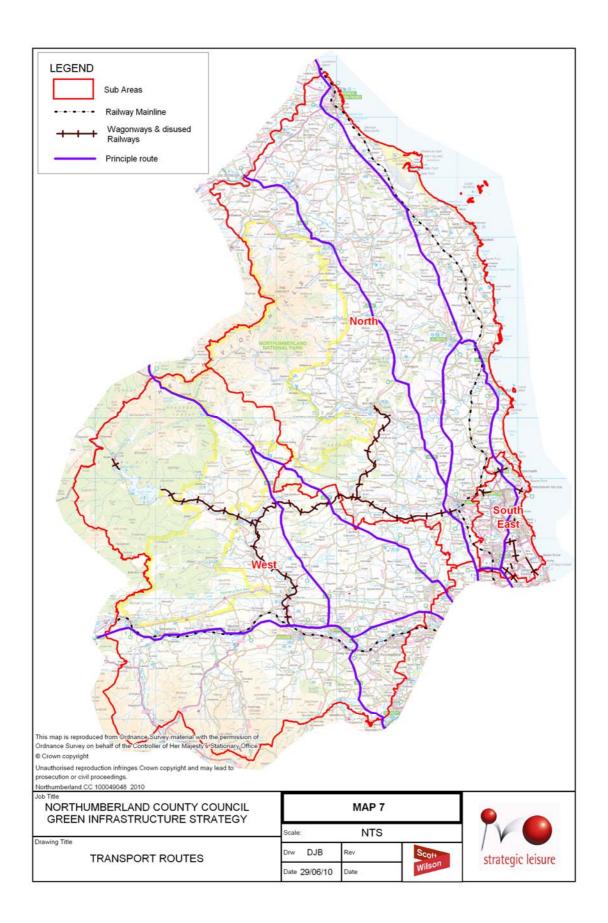
3.48 Under the Countryside and Rights of Way Act 2000 (CROW), the public can walk freely on Open Access Land (See Map 6) ie mapped areas of mountain, moor, heath, downland and registered common land across Northumberland, without having to stick to paths. See Map 10 for publicly accessible open space.



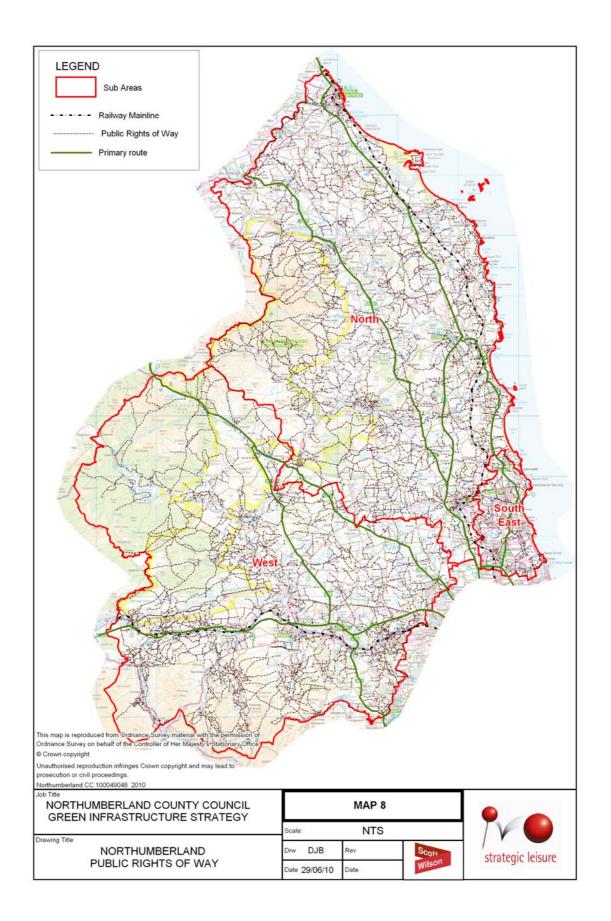
- 3.49 NCC aims to manage the access and rights of way network with regard to the need to protect and enhance the environment and biodiversity.
- 3.50 The County is crossed by a network of transport routes, and public rights of way, (including national trails, cycleways, footpaths and bridleways). The principal routes, (excluding national trails, cycleways etc) (see Map 7 are:
 - The A1 (M1) travelling north on the county's eastern side linking Cramlington, Morpeth, Alnwick and Berwick upon Tweed to Newcastle beyond in the south and the Scottish borders to the north
 - The East Coast Mainline Railway
 - The Tyne Valley Railway Line, the main railway line which connects the west of the County with Cumbria, Gateshead and Newcastle
 - A68 providing a link between Corbridge, Otterburn and beyond
 - A69 Travelling west to east and linking Haltwhistle on the western edge of the County with Hexham, Corbridge and into neighbouring Tyneside and beyond
 - A696 linking Darras Hall, Ponteland to the less populated areas of Otterburn and the edge of the Northumberland National Park
 - A697 linking Crookham through to Morpeth and beyond to Scottish borders
 - A1068 travelling northwards linking Ashington, Amble and Alnwick
 - A189 linking Cramlington and Newbiggin and beyond
- 3.51 In addition there is an extensive, well-developed network of rights of way; this enables access to the wider countryside for both local people and visitors. Northumberland County is served by a network of over 3,094 miles of dedicated Public Rights of Way (PROW). This equates to over 49% of the total Rights of Way in the entire North East region. (See Map 8)

Northumberland County Council

Northumberland Green Infrastructure Strategy



Northumberland Green Infrastructure Strategy



3.52 There are four Rights of Way categories in the County:

Table 3.9: Four Rights of Way

Right of Way Category	Number	Miles	%of Total Network	
Footpaths	3572	2089	66%	
Bridlepath	1004 890		28%	
Restricted Byway	32	36	5%	
Вуway	214	141	<1%	

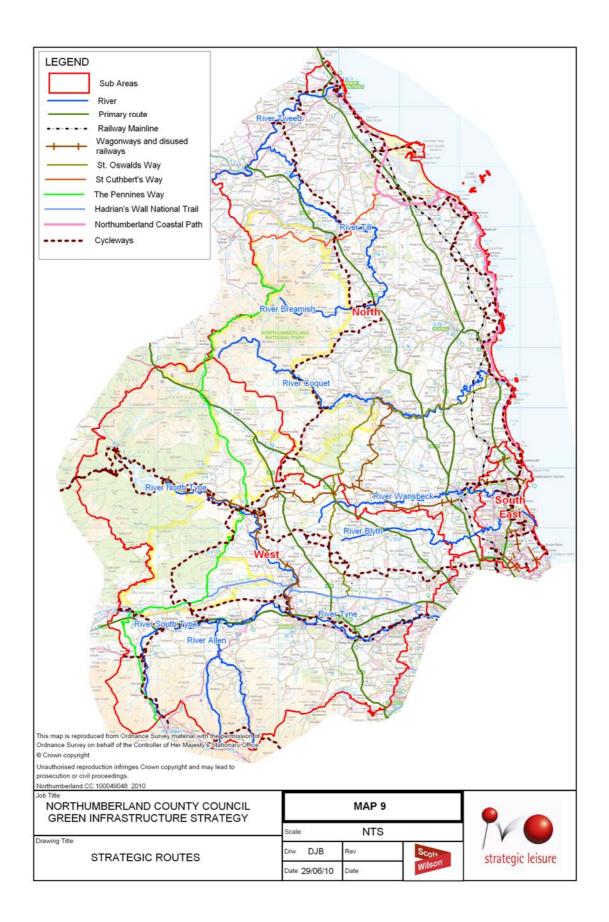
- 3.53 The Northumberland Rights of Way Improvement Plan sets the framework and standards which NCC will seek to achieve in improving the existing network. Although GI is much broader in scope, the Rights of Way network is integral as a delivery mechanism for encouraging sustainable access to the green and open spaces, providing the green linkages between them, and between settlements. For many purposes, the PROW network, and access routes generally are the physical spine of the Green Infrastructure network of importance for many of its functions eg recreation, access to nature etc.
- 3.54 In addition there are the nationally recognised trails and long distance routes (part of the above network); these include:
 - Hadrian's Wall National Trail and the Coast to Coast Walk
 - Northumberland Coastal Path which runs from Cresswell in the south to Berwick upon Tweed in the North and forms part of the North Sea Trail
 - St Oswald's Way linking Heavenfield, Alnwick to Holy Island
 - The Pennines Way National Trail which runs through Bellingham and beyond
 - St Cuthbert's Way ranges between Melrose on the Scottish Borders to Holy Island
- 3.55 There are also several national and regional cycle trails promoted by Sustrans (National Cycling charity) which run through the County; these include:
 - National Route 68 the Pennine Cycleway (Crossing North to South on the County's western boundary
 - National Route 72 Hadrian's Cycleway (Crossing West to East in the South of the County)
 - National Route 1 The North Sea cycleway that incorporates the coasts and castles trail (Crossing North to South on the County's eastern edge
 - Regional Route 10 Reivers Cycleway (linking the west coast to the east coast)
 - Regional Route 20 Walney to Wear (W2W) cycle way

Strategically Important routes:

Northumberland Green Infrastructure Strategy

- Kielder lakeside Way
- South Tyne Trail
- 3.56 In addition there are a number of disused transport routes that cross the County; these include:
 - The former track of the Borders Railway
 - The former Berwick to St Boswells track
 - The former Cornhill to Alnwick line
 - The track bed of the North Tyne Railway (Blyth and Tyne Railway)
 - Heathersaw Railway
 - Plessey Wooden Wagon way
 - Wylam Wooden Wagonway
 - Shilbottle Colliery Railway
- 3.57 Strategically important routes are shown on Map 9.

Northumberland Green Infrastructure Strategy



- 3.58 The local road network includes A and B class roads that serve local settlements from main towns to the small rural settlements. The road network includes dense hedge boundaries, trees and roadside grass verges, which form an important and extensive network of wildlife corridors.
- 3.59 The Government has completed a consultation exercise to improve access on foot to the English Coast. From the proposal the key outcome will be the creation of a national costal access corridor. Improving access to the Northumberland coast will be a priority for NCC and Natural England during the life of the Rights of Way Improvement Plan.
- 3.60 The main issues and opportunities relating to access corridors are summarised in Table 3.10:

Table 3.10: Access Corridors – Issues and Opportunities

Ac	Access Corridors							
lss	Issues		ips	Ор	portunities			
•	 There is a high dependency on access to a car in the County. Access via the river corridors is fragmented and disjointed. The west of the County incorporates the Northumberland National Park and as such increases the sense of rural remoteness which limits the opportunity to improve the transport network. The rural nature of the county and the distribution of settlements does not allow for effective public transportation systems for many areas in the County. The A1 can provide fast access to neighbouring Newcastle City but travel can be congested and contributes to air pollution and increased noise levels. The distribution of each category of Right of Way is uneven across the county. There are areas of 	•	The river corridors do not currently provide a continuous, connected means of travel for people or wildlife. There is a fragmented network of disused railways and wagon ways. The Rights of Way network is fragmented with missing links especially the bridle path network missing bridges, obstructions to routes and poor gates and stiles, deteriorating way markers and path surfaces in poor condition. There are localised areas of deficiency especially in the more densely populated urban areas. The Public Rights of Way Improvement Plan needs to be incorporated into wider strategies for climate change, biodiversity	•	To recognise and realise the biodiversity potential of the County's access corridors as a means for animals and plants to migrate and establish. To maximise the opportunity provided through the transport network as a green infrastructure asset that supports multifunctional initiatives such as improved water management. Ensuring that the transport corridors provide a network that contribute to improved connection between the natural and man made environments whilst reducing the dependence on the car.			
	deficiency in terms of public bridleways, which are fragmented and disjointed. The opportunity to interconnect travel is restricted and limited due to gaps in provision, and differing and varied path	•	and flood risk. The cycle network is not yet sufficiently developed or		wagonways and disused railways to promote recreation and also enhance wildlife movement.			

ssues	Gaps	Opportunities
network in Northumberland but are symptoms of a more national problem.	 established to provide continuous safe routes and thereby reduce the need for a car. There is an undersupply of connected horse riding routes. There is a need to increase the accessibility opportunities between the urban and rural fringe. 	 To identify and promote new connections for the benefit of commuters and recreational users with a focus being on the provision of sustainable routes that link employment with settlements. Ensure that the network of public rights of way meet current and future needs is accurately recorded and is in a condition which enables legal use. Identify and implement improvements which will enhance the provision of recreational, health and transport requirements of residents and visitors. Enhance the range, type and accessibility of information available about Northumberlar rights of way. Work in partnership with

Access Corridors		
Issues	Gaps	Opportunities
		enhance and promote the County's access corridors.
		• To improve the connectivity of the off road cycling network.

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- 3.61 A key priority for NCC is to improve the quality of the PRoW network, especially in relation to bridleways, to develop access to the network for all, with greater emphasis on promoted walks and rides, and developing further regionally and nationally important trails.
- 3.62 The key objectives in relation to access corridors is to:
 - Promote, maintain and create a high quality multi functional network of interconnected routes and rides that provide access opportunity to a wide variety of users.
 - Deliver the objectives identified in the County Rights of Way Improvement Plan.

Accessible Open Space

- 3.63 Publicly accessible open space plays a significant role in everyday life. It provides local places for people to meet friends, play, relax, participate in sport or recreation or in local events. Public open space operates across a significant range of scales, including nationally designated and regionally important (the National Park, Northumberland Coast, Kielder Forest and the open moors), to that important at sub regional or local level, such as amenity space provided in residential areas.
- 3.64 Welcoming, safe and well-managed sites are a key contributor to sustainable, attractive neighbourhoods and local pride. Good quality open space provides local people with the opportunity to come together as a community; active participation in the design and management of sites generates local ownership. The principal publicly accessible spaces across the county are (see Map 10):
 - **Northumberland National Park** to the west principally provides large areas of open access land and many kilometres of public rights of way.
 - **Northumberland Coast** to the east provides a popular venue for numerous leisure and recreational activities as well as being designated an Area of Outstanding Natural Beauty (AONB) and therefore managed accordingly.
 - North Pennines (AONB) a popular venue for walking, mountain biking and horseriding and attracting visitors into the county via the long distance Pennine Way.
 - **Kielder Water and Forest Park** is a destination that is seeking to exploit the peace and tranquillity associated with its man-made lake and surrounding natural environment. In this respect, the area is being actively promoted to nature enthusiasts; water sports enthusiasts, walkers, and cyclists.
 - **Country Parks** there are 8 Country Parks in Northumberland Bedlington Country Park, Bolam Lake, Druridge Bay Plessey Woods, Queen Elizabeth II Park, Tyne Green, Hexham, Tyne Riverside Country Park, and Wansbeck Riverside Park. (Tyne Riverside Country Park is an accredited Country Park in accordance with the Natural England Country Parks Accreditation Scheme). A number of large houses with surrounding grounds also offer a countryside experience, such as Belsay Hall, Cragside and Wallington Hall. Country Parks form an integral part of the green infrastructure across the County. They are an important part of the green network and often provide the links for wildlife to move freely from site to site. Research by CABE space has demonstrated that well designed good quality greenspace is important to people's health and well being and can increase property values.
 - Access Land as defined by the Countryside and Rights of Way Act 2000 is to be found across the County, with key concentrations on the open moors to the West and within the National Park boundaries.
 - Forestry Commission one of the larger landowners who, where feasible, allow open access to their estate. In Northumberland large concentrations of woodland are to be found to the north and west of the county; sites include Hepburn, Simonside, Kielder and Holystone.

- The English Heritage 'Register of Historic Parks and Gardens of special historic interest in England' was established in 1983, and has 17 sites recorded in Northumberland. These sites are important to the green network as they form hubs of interest due to their wildlife value, historic interest and high quality landscapes that often provide a tourist interest.
- **Woodland Trust**, a national charity, promotes open access on sites under their control and ownership. Sites include Paddock Wood, Hartburn Glebe, Whittledene, Irthing Woodland Gorge.
- **Northumberland Wildlife Trust** proactively manages a range of sites across the county for the benefit of wildlife and local people, several of these sites are also classified as public open space.
- **Public Open Space** the County has commissioned a comprehensive PPG17 Assessment to sit alongside this strategy and provide much of the evidence with regards to the current levels public open space provision. The PPG17 Assessment has identified over 1200 individual public open spaces, varying in type from larger country parks and formal parks to accessible natural greenspace, outdoor sport facilities, children's play, allotments churchyards and cemeteries and local amenity space. It is to these spaces the application of Natural England's Accessible Greenspace Standards (ANGSt) refers (see Section 3.79).
- Reclaimed Sites that now form part of the provision of public open space. The legacy from the former mining industry has resulted in a former pit sites, and restored open cast sites being transformed through reclamation into local green space sites. In some instances local people see them as local parks or areas for informal recreation. Many have been planted with native tree and shrub beds and prove a valuable source of local habitat for a rich variety of wildlife; as such several are now local nature reserves, others are equally important non-designated sites of conservation interest.
- **Brownfield Land** The term 'Brownfield' is applied to unused or vacant land, previously occupied by human use, primarily by industry. Many brownfield sites are of a temporary nature as they await redevelopment. If a brownfield site is left undisturbed a succession of habitats swill develop, such as grassland, wetlands, scrub and woodland. The biodiversity value of brownfield land is often underestimated. Brownfield sites are often described as being 'unsightly' and their ecological value misunderstood. Open ground is an important habitat for lichens, butterflies, moths, beetles and bees.

Local Greenspace

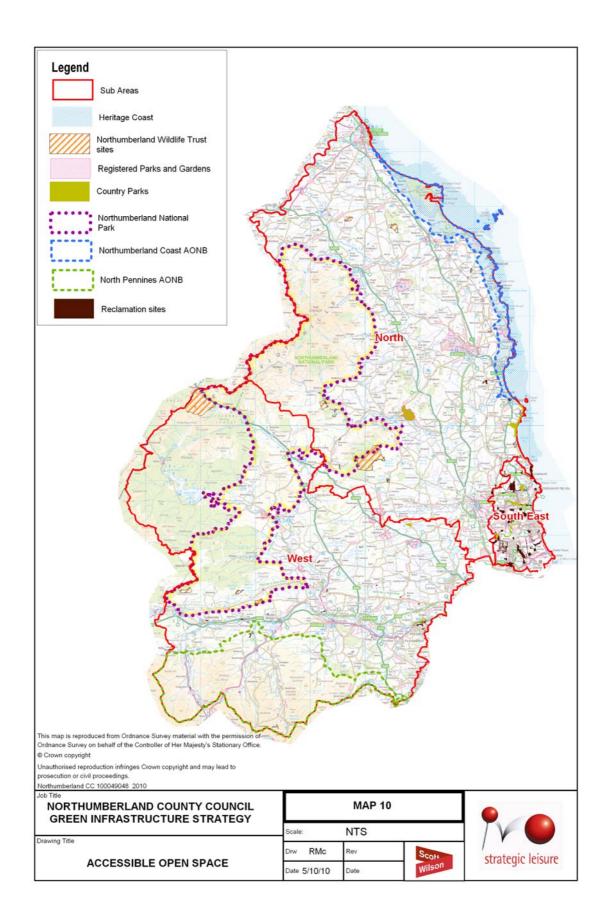
- 3.65 Welcoming, safe and well-managed sites are a key contributor to sustainable, attractive neighbourhoods and local pride. Good quality open space provides local people with the opportunity to come together as a community; active participation in the design and management of sites generates local ownership. The principal publicly accessible spaces across the county are shown on Map 10.
- 3.66 It is the local greenspaces that are so very often the most important to local people as they simply want somewhere safe clean and welcoming that is readily accessible to visit and for their children to play. Unfortunately the quality audit undertaken as part of the PPG17 assessment has identified that the County has much to do in raising the quality of these sites as many are tired and lack the basic provision of decent footpaths, signage benches or bins.
- 3.67 The Green Flag Award is a national quality award that has been developed to help drive up the quality of parks and greenspace across the country. Applications for the Green Flag Awards are judged against eight criteria: a welcoming place; healthy safe and secure; clean and well maintained; sustainability; conservation and heritage; community involvement; marketing; and management. NCC has 3 Parks in 2010 that meet the required standards Hexham's Central Parks, Carlisle Park in Morpeth and Hirst Park.
- 3.68 NCC is working in partnership with local people and through organisations such as The Northumberland Wildlife Trust (NWT) and Groundwork in a co-ordinated attempt to drive up the quality of these spaces.

Schemes such as the Ashington Community Woodland Project will lead to the transformation of the 133 hectare reclamation wood with funding secured via Natural England's Access to Nature Scheme (Part of the Big Lottery funds Changing Spaces Programme).

Brownfield Sites

- 3.69 Brownfield sites by their nature tend to be poor quality soils and relatively undisturbed since previous use. They are prone to natural succession and colonisation by pioneer species of trees grass and plants; they become host to natural colonisers of the plant and animal communities and are characterised by a semi-natural, unmanaged nature.
- 3.70 Often because of the poor quality soils and disturbed nature of the ground they can become home to a rich variety of locally rare species or species that have declined in the wider countryside due to intensive agricultural practices.
- 3.71 Many Brownfield sites are of a temporary nature as they await redevelopment. If a brownfield site is left undisturbed pioneer communities will develop through succession into habitats such as grassland, wetlands, scrub and woodland. The biodiversity value of brownfield land is often underestimated. They are often described as being 'unsightly' and their ecological value misunderstood. Open ground is an important habitat for lichens, butterflies, moths, beetles and bees.
- 3.72 In 2009 Groundwork undertook an assessment of selected brownfield sites across the North East and found 4 sites from a snapshot sample in Northumberland to be of high biodiversity value. These sites are the former Bates Colliery and HJ Banks land, the former brickworks on Pitt Lane, Seghill, West Harford in Blyth Valley and East Ashington in Wansbeck.
- 3.73 **Local Nature Reserves** (LNR) There are currently 28 Local Nature Reserves in the County and these occupy 562.50ha. The greatest number of Local Nature Reserves is in the South East occupy 381 ha and provide some important access to nature for local people in the more densely populated urban areas.
- 3.74 Sites include Bedlington Country Park, Seaton Sluice Dunes, Choppington Community Woods. In the more densely populated urban areas these site play a significant role in providing local people with access to nature.
- 3.75 **Sites of Local Wildlife or Geological Interest-** there are approximately 221 sites that are considered to be of non-statutory nature conservation interest. The majority of these sites are located in the North and West of the County with the more densely populated urban area of the South East only having 13 sites. These all provide an important opportunity not only for wildlife, habitat and environmental education but also an opportunity for local people to gain access to nature. These sites are often a local stronghold for wildlife or serve as a valuable retreat or safe haven.

Northumberland Green Infrastructure Strategy

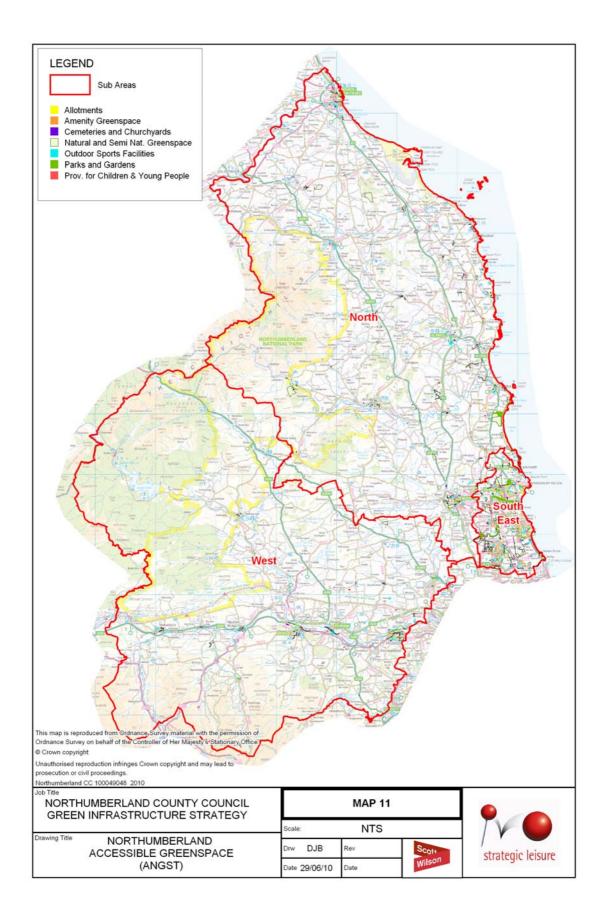


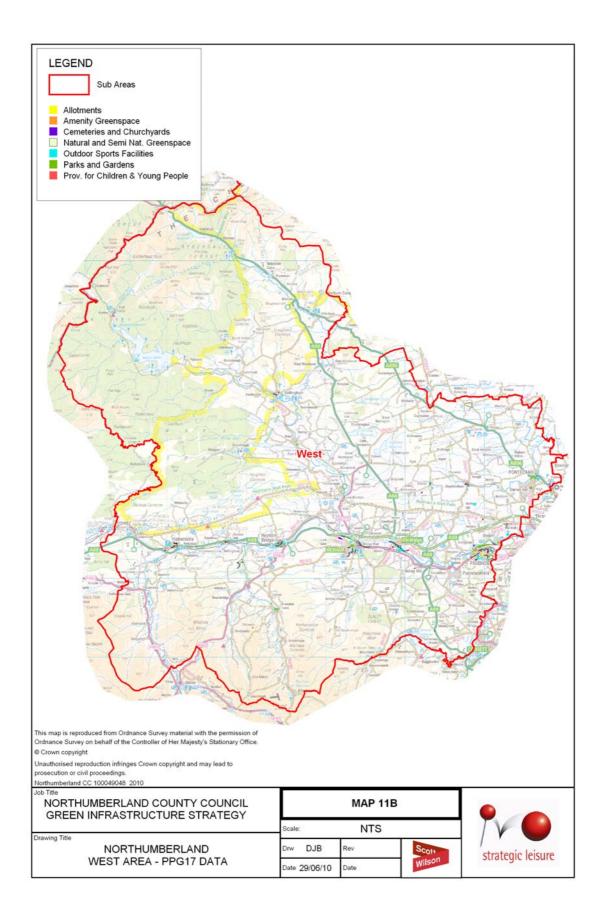
- 3.76 These public open spaces form an integral part of the green infrastructure across the county. They are an important part of the green network and can provide the links for wildlife to move freely from site to site. However, existing sites, as shown on Map 10 are highly fragmented.
- 3.77 In order to determine accessibility standards for future planning policy the NCC PPG17 (2011) assessment has developed access standards that are based on public consultation to identify time and distance thresholds and establish deficiencies of accessible public open space. This excludes many of the accessible sites defined above such as the National Park, public access land, the coast and Kielder. The reason being these are more accessible areas than actual sites and they are in the main reliant upon access by car or public transport. For example residents in key settlements in the South East need access to a car or public transport to access the National Park.
- 3.78 The recognised means of determining accessible greenspace is provided through a number of methodologies including Natural England's Accessible Greenspace Standards, and the Woodlands Trust Woodland Access Standards.

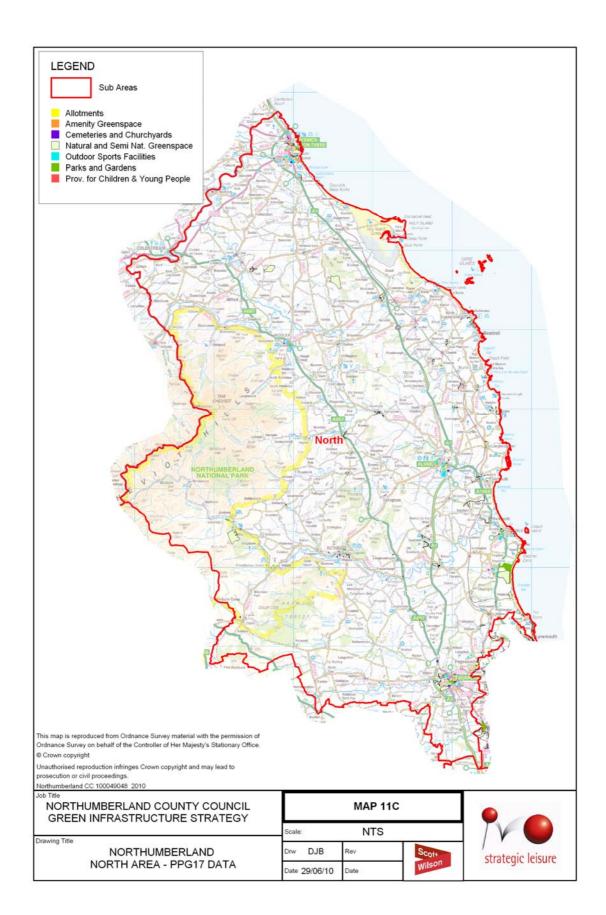
Developing Standards for Accessible Greenspace

- 3.79 The most recent statutory guidance in relation to the provision of open space, sport and recreation provision is PPG17 (2001). The guidance stipulates the need to establish standards of provision for all open space, sport and outdoor recreation types based on acceptable quantity, quality and accessibility thresholds. There are two increasingly recognised, but differing, methods for accessing accessibility to natural greenspace; as mentioned earlier these are:
 - Natural England's Nature Nearby 'Accessible Natural Greenspace Guidance (ANGSt) set to establish the need to provide accessible greenspace of varying size thresholds within specified distances from home. (This is discussed in more detail later)
 - The Woodland Trust 'Woodland Access Standards set to establish accessible woodlands within two defined size and distance thresholds namely people should have access to a 2ha wood within 500m of where they live. Alternatively there should be at least one area of accessible woodland of no less than 20 ha within 4kilometres of where people live.
- 3.80 These are catchment based standards, which when met lead to a more equitable distribution and provision than standards of the format xx ha/ 1000 population. The latter would distort the picture when larger GI assets and natural areas as present in Northumberland would be included. There are further catchment based standards.
- 3.81 In conclusion, the overall approach used to identify, analyse and interpret Green Infrastructure in this strategy conforms with the guidance advocated by Natural England's Accessible Natural Greenspace (ANGst) The Woodland Trust 'Accessible Woodlands' leading to analysis based on appropriate size thresholds and is a nationally recognised approach that is consistent with neighbouring authorities.
- 3.82 For the purpose of assessment it is the ANGSt standard that has been utilised to inform this strategy. ANGSt is recognised as a national benchmark and forms part of the government's guidance on planning for strategic provision of greenspace. ANGSt is also recognised as the methodology that has the best fit for green infrastructure planning as it assesses provision across a variety of thresholds and can be used to assist in setting targets and producing accessibility thresholds.
- 3.83 In developing accessibility thresholds it is important to recognise the fact that people make use of their nearest space on a more regular basis than green spaces further away; if they live opposite a major resource such as a National Nature Reserve or Common then this will be the space they use most and as such is likely to be their perceived 'local greenspace'. The development of thresholds and standards is seen as the most appropriate way of ensuring local communities are well served by an array of greenspace provision.

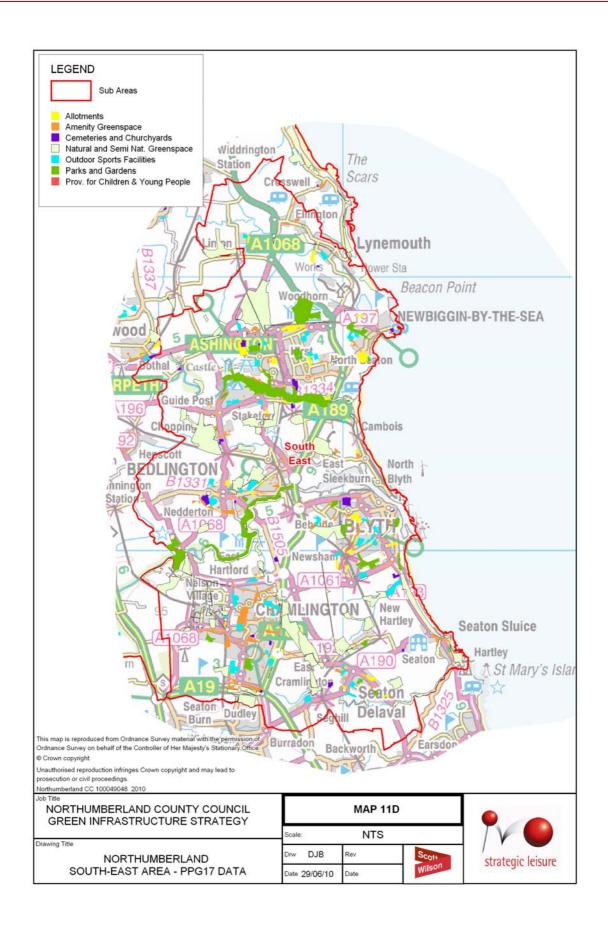
- 3.84 ANGSt places an emphasis on the importance for communities to have easy access to different scales of greenspace provision (natural and semi natural greenspace) close to where they live. The ANGSt standard provides two means to measuring and analysing levels of provision. These are based on scale (Determined size thresholds) and catchment (the distance people are expected to travel).
- 3.85 ANGSt is based on three guiding principles namely; improving access, improving naturalness and improving connectivity.
- 3.86 The ANGSt model recommends that everyone regardless of where they live should have access to a natural greenspace:
 - Of at least 2 hectares in size, no more than 300 metres (5 minutes walk) from where they live
 - At least one accessible 20 hectare site within 2 kilometres of where they live
 - One accessible 100 hectare site within 5 kilometres of where they live
 - One accessible 500 hectare site within 10 kilometres of where they live
 - Plus 1 ha of local nature reserve per 1000 population.
- 3.87 In developing the assessment based on ANGSt at the strategic level it is important to recognise that ANGSt does not consider site quality, site capacity or site sensitivity .It is also important to recognise that the standard is primarily aimed at a predominantly urban population, and in the case of Northumberland it primarily applies to settlements rather than individual isolated rural dwellings.
- 3.88 The thresholds identified above will be hard to achieve in some areas of the County and therefore need to be seen as a long term aim. It needs to be recognised that the above thresholds do not consider the opportunities provided through the public rights of way network. It is also important to recognise that standards set through PPG17 guidance identify localised standards for accessibility to greenspace, based on consultation.
- 3.89 The May 2011 PPG17 assessment has set accessibility standards based on a response to travel time to different types of open space provision by the public. However, there are qualitative standards for (natural) greenspaces such as Green flag and the country park accreditation scheme. The detailed results can be found in the accompanying NCC May 2011 PPG17 Assessment. (see Maps 11, and 11b 11d)







Northumberland Green Infrastructure Strategy



Quantity Findings

- 3.90 Analysis of the accessible public open space in and around local settlements, villages and towns shows that there is an overall provision of 4,180 ha of accessible greenspace in the County provided through in excess of 1,280 sites (note this does not include beaches, open access land or the coast), and an overall provision of 13.4ha per 1000 population.
- 3.91 On an area basis the provision varies significantly with the north area having the greatest provision at 18.3ha per 1000 compared to the south east with13.7ha per 1000; the west area of the county has significantly lower provision at 7.1ha per 1000 population (the rationale for this is the existence of the National Park, which has been excluded from the calculations on accessible greenspace, as discussed previously).
- 3.92 The May 2011 PPG 17 assessment provides key detail on the rich variety of open or greenspace provision available to the public such as the grassed amenity spaces provided for recreation in densely populated urban housing estates, allotments, play areas, school playing fields, sports pitches and parks.
- 3.93 The analysis also identifies that the County as a whole is well provided for in terms of Local Nature Reserves when compared to the Natural England recommended 1ha of provision per 1000 population. The county currently has 27 sites that are designated Local Nature Reserves occupying 640 ha; these provide 2ha per 1000 population across the county.
- 3.94 In terms of green space provision by type the PPG17 assessment has identified the following greenspace (Table 3.11) that serves the urban and rural settlements.

Typology	North		South East		West		TOTAL	
Туроlоду	No.	На	No.	На	No.	На	No.	На
Parks and Gardens	24	208.23	25	380.05	14	77.8	63	666.08
Natural and Semi-Natural Greenspace	146	1009.84	71	1105.52	44	231.06	261	2346.42
Amenity Greenspace	161	107.58	186	206.11	38	25.55	385	339.24
Outdoor Sport	87	191.68	61	178.89	54	156.23	202	526.80
Provision for Children and Young People Stand alone	44	5.46	27	4.15	45	6.55	116	16.16
Provision for Children and Young People within other typologies	37	2.81	47	4.15	24	6.55	108*	10.74
Allotment	48	36.90	59	99.63	19	23.54	126	160.07

Table 3.11: Quantity of Open Space in Northumberland by Area

Northumberland Green Infrastructure Strategy

Churchyard and Cemeteries	85	60.03	21	44.56	22	20.83	128	125.42
Total	595	1619.72						4180.19

- 3.95 It is important to note that the above table does not reflect the overall provision of green infrastructure in the County as it does not take into account open access land, beaches, coast, public rights of way or larger designated sites such as the county's national nature reserves, Kielder Water or Kielder Forest. If such sites were included in calculations to identify levels of provision required as part of new residential development they would significantly skew calculation figures. However they are included in the ANGSt assessment.
- 3.96 In terms of applying ANGSt, which relates only to semi-natural and natural greenspaces, the assessment has revealed the following with regards to accessible greenspace across the County and within the subareas.

Area	No of dwellings	Within 300m of 2ha	%	Within2km of a 20ha	%	Within 5km of 100ha	%	Within 10km of 500 ha	%
North	45396	24,577	54%	22,434	49%	24,300	54%	18,649	41%
South East	33464	60,001	87%	66,638	96%	42,524	61%	0	0%
West	69152	17,566	52%	15,147	45%	9,105	27%	18,216	54%
County	148012	101352	68%	104,219	70%	75,929	51%	36,865	25%

Table 3.12 Application of ANGSt Standards

- 3.97 Table 3.12 shows that there is a marked variation in the levels and scale of accessible greenspace across the county based on the ANGSt distance and size thresholds. It shows that 68% of all households are within 300m of an accessible natural or semi natural greenspace and that 70% of households across the county are within 2km of a 20 ha site. Only 51% of households are within the 5km threshold of the larger 100ha sites and 25% of households have access to a 500 ha site within 10 km of where they live.
- 3.98 Analysis shows that there are clear deficiencies of accessible greenspace across all size thresholds in:
 - The North of the County along the A698 corridor and the settlements Cornhill on Tweed, Castle Heaton and Crookham
 - Along the A1 corridor running north to south including the settlements of Rennington, High Newton by Sea, Stanford, Dunston, Bilton Trillington and Stannington
 - Along the B643 at Throphill Meldon

- Along the B6524 at West Edington and Whalton
- Along the A696 at Higham Dykes, Berwick Hill and Milbourne
- Along the A68 at Great Whittington, Bingfield (although these settlements are in close proximity to Hadrian's Wall)
- 3.99 These figures need to be kept in context as the residents in the west have access to the wider countryside and residents in the south east may have access to the coast and beach but in many instances this will be reliant on residents having access to either a car or public transport (some areas, particularly in the south east have very low levels of car ownership). These sites may serve the same purpose as natural and semi natural greenspace, i.e. providing local people with access to informal recreation and nature close to where they live.

Quality Findings

- 3.100 As part of the development of this Green Infrastructure Strategy a separate PPG17 Assessment has been undertaken. The PPG17 has involved a site visit and assessment of over 1400 individual green space sites across the County.
- 3.101 The sites have been assessed to gauge the quality of the range of facilities and physical infrastructure contained within individual sites and the level and extent to which it is seen as being 'fit for purpose'. The audit therefore considers factors such as accessibility, safety, management, maintenance and overall impression it also considers the presence of fixtures such as benches, bins, gates, signage hedges trees and paths.
- Quality open space is usually fit for purpose, it is welcoming, well maintained and safe (key elements of 3.102 the Green Flag Award site assessment), one of the strengths of a good quality open space provision is the nature in which sites can provide multi-functional activity.
- The quality assessment pro-forma is based on a number of key criteria encompassing the quality 3.103 aspects of the Green Flag Programme, ILAM Parks Management Guidance and the Tidy Britain Scheme. Sites are scored and rated based on the sub typology they may fall into. The scores are set based on best practice and on the facilities that would be expected to be present on sites of that type
- 3.104 The quality audit provides and indicative rating of quality out of 100%. It is important to note that the quality score represents a "snapshot" in time and records the quality of the site at the time of the visit.

Very Poor	Poor Below Average		Average	Good	Excellent	
0% - 15%	16% - 30%	31% - 45%	46% - 60%	61% - 75%	76% +	

Quality Line

Table 3.13 identifies the significant variance in the range of guality both within individual typologies and 3.105 across the different classifications of open space with an overall Countywide rating of 48% or a rating that just sits within the 'Average' bandwidth in accordance with the quality line above.

Table 3.13: The Significant Variance in the range of Q	luality
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Туроlоду	Number of Sites	Quality Range (%)	Average Quality Score (%)
Allotments	126	8-90%	36%
Amenity Greenspace	385	11-86%	49%
Churchyards and Cemeteries	128	19-90%	57%
Natural and Semi Natural Greenspace	261	5-87%	39%
Outdoor Sports Facilities	202	6-98%	51%
Parks and Gardens	63	26-83%	57%

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Туроlоду	Number of Sites	Quality Range (%)	Average Quality Score (%)
Provision for Children and Young People	116	16-91%	51%
County Total	1281	5-98%	48%

- 3.106 The key factor that affects the quality scores is the quality of individual infrastructure elements reflected through the management and maintenance of footpaths, grass cutting, litter management and also through the lack of basic infrastructure such as signage, benches and bins, to make visitors feel welcome.
- 3.107 The audit of accessible greenspace provided in and around the County's towns, villages and local neighbourhoods shows that the quality of provision falls some way short of being classed as good (61% or above being good). The audit has revealed that 67% of all sites fall below a good rating and further analysis showed that over 40% rated as below average or worse. The audit has also revealed a significant variance in the quality of sites by type, whilst on an area basis the average quality ratings are fairly consistent.

	No	rth	South	East	West		0
Туре	Range	Average	Range	Average	Range	Average	Average
Allotments	13%-64%	37%	8%-70%	33%	13%-90%	37%	36%
Amenity Greenspace	18%-86%	53%	11%-85%	46%	21%-76%	47%	49%
Churchyards and Cemeteries	22%-83%	57%	19%-90%	60%	22%-85%	53%	57%
Natural and Semi Natural Greenspace	11%-87%	38%	5%-84%	40%	13%-83%	40%	39%
Outdoor Sports Facilities	6%-88%	50%	21%-98%	53%	6%-87%	49%	51%
Parks and Gardens	26%-83%	56%	36%-81%	57%	27%-79%	58%	57%
Provision for Children and Young People	22%-86%	50%	16%-82%	59%	22%-91%	49%	51%
	6%-88%	49%	5%-98%	47%	6%-91%	47%	48%

Table 3.14: Quality Range by Type and Area

- 3.108 The quality of the open space is dependent upon the ownership and good stewardship. Within local authorities the decline in quality and function of open space is well documented and the reasons for the decline are not a key element of this strategy.
- 3.109 The overall average quality of accessible greenspace is 48%, which is a relatively low rating on the quality line outlined above. The score of 48% can however be used as the minimum quality threshold and as such all sites that fall below the threshold need to be improved to achieve a score of 48% or more as a matter of urgency. Ideally the Council and its partners should be delivering greenspaces that are 'Good' or above in terms of the actual quality of the site for maintenance, infrastructure and management and clearly there is some way to go to achieving this particularly at the local site level. This is certainly illustrated in terms of the quality of natural and semi natural greenspaces where the average falls way below the expected standard.

- 3.110 It is important to recognise that the sites are assessed from a visitors perspective when it comes to quality and as such the basic concepts of is it safe, is it welcoming and is it well maintained have been applied. In terms of welcoming factors such as signage (name of site, who owns it who is responsible for it and who to contact), litter bins for people, benches for people to sit on and rest, relax and enjoy the peace and tranquility are all good practices.
- 3.111 In the case of the County's natural and semi natural sites provided as informal recreation facilities and important habitats where people can enjoy nature, wildlife can flourish and biodiversity is actively encouraged the basic elements such as signage, bins and benches where missing. For example the audit has revealed that 73% of the audited natural and semi natural greenspace sites do not have a basic sign, 70% had no bins and 75% had no seating.
- 3.112 Maps can be used as an example to illustrate that local people do not necessarily have access to good quality greenspace within the catchment of 300m defined by Natural England. There is the potential to improve the quality of sites such as the larger reclamation sites and in doing so this would significantly increase the amount of good quality greenspace that is accessible at the local level. Maps 11a-11d illustrate the assessment of accessible existing greenspace in Northumberland, by each sub area.
- 3.113 Although the audit was primarily driven by PPG17, the information collated provides the Council with a comprehensive overview of the condition of the green space provision and provides a level of management information not previously available. This information will enable the County to make more informed decisions on the resources required to undertake prioritised improvements in site management and maintenance.
- 3.114 The main issues and opportunities relating to accessible open space are summarised in Table 3.15.

	Fable 3.15: Accessible Open Space – Issues and Opportunities Accessible Open Space				
lss	ues		Gaps	Ор	portunities
•	The use of generic planning policy has left a legacy of providing open space but not necessarily of the right type in the right place to meet local needs. The focus has been on a net provision in terms of quantity of open space in residential areas. In the main this has helped shape the character and nature of the county. It has been geared towards a planning standard rather than on the quality or type of provision. The provision of open space as a result of planning policy has meant that sites stand in isolation and habitats are fragmented. The deficiencies and fragmented network of publicly accessible open space across the county and the misconception that rural areas of the county are well served by accessible greenspace. The piecemeal approach to provision needs to be addressed, ensuring that provision is fit for purpose, meets local need and contributes to local character and distinctiveness whilst making a positive contribution to the wider green network.	•	Accessible open space is not available to all cross sections of local communities. There are significant gaps in the range and quality of accessible open space available. There needs to be a strategic approach to safeguarding open space, balancing the fact that it may be a brownfield site or an amenity space in a rural or urban settlement, where it may have value to either the local community, wildlife or have a wider green infrastructure multifunctional opportunity and purpose, with the need to encourage sustainable travel, and use of green networks to access nature, recreational provision etc.	•	Creating a better network of connected multifunctional greenspace is a priority for green infrastructure planning in the future. The Green Infrastructure Strategy needs to recognise that networks of local green space need to be well designed and managed and that the spaces need to cater for the broadest spectrum of leisure and recreational activities by being multi functional. Implementing the recommendations of the May 2011 PPG17 assessment as a means to address the inequalities in quality and accessibility of provision. This will ensure that local people have equal access to a range of good quality greenspace.
•	Access for residents to many of the designated larger sites, the national park and the coast is in many instances dependent upon the use of a car or		change the management and maintenance of public open spaces and to recognise the opportunity for improved habitat	•	Ensuring that future provision is large enough to serve a valuable purpose and serve multiple communities. For example in

Table 2.15: Accessible Open Space Jacuas and Oppertunities

ssues	Gaps	Opportunities	
public transport. Work is underway to improve many of the reclamation sites organised and arranged by a number of stakeholders, this work is making sites more accessible and would benefit from wider involvement and greater co-ordination in terms of action planning and priorities. It has to be stated that much of the work is improvement or catch up on the original planned maintenance and management that faded as a result of funding being reduced or in some cases where it simply came to an end and the resources to continue maintaining sites to the desired level simply did not exist.	 especially in the more formal urban parks. There is a real need to improve the quality of accessible open space across the county as identified through the quality audits undertaken as part of the may 2011 PPG17 Assessment. The quality of open space can have a negative impact on the quality of life for local people and tourist appeal The range and extent of information regarding actual visits is not consolidated or managed by a single point. There is limited opportunity for local people to have an input into the management and maintenance of open space. There is limited feedback from customers as to what the priorities for investment in open space need to be. 	 new development any open space provision will be consolidated as one site therefore reducing demand on resources and proving easier to manage. To build on the reclamation of former pits and quarries and to learn from the past when considering the resources required to transform a former brownfield site into a vibrant ar valuable resource for both people and wildlife. To improve the links and create new connections by enhancing and improving the existing rights of way network, river corridors and disused transpor routes such as the wagonways and disused railway lines. To address the shortfalls in public open space in residentia areas by maximising planning gain. This will be best achieved through the use of evidence gathered in the PPG17 assessment identifying what 	

Accessible Open Space			
Issues	Gaps	Opportunities	
	 There is a need to produce a County wide open space strategy. There is currently no means in use by the Council of measuring improvement in quality of open space over time. 	 open space is needed and where opportunity exists to secure contributions to improve the quality of existing open space to serve a wider community. To improve and enhance the multifunctional purpose of accessible open space by adapting and changing management and maintenance to meet predicted climate change. To maximise the opportunity for open space to be used to improve the health and well being of local people through the introduction of green gym initiatives, health walks and the opportunity to be close to nature. The key priority has to be to improve the quality of existing provision through enhanced management and maintenance to ensure sites fulfil a wider range of environmental functions and to increase the 	

Accessible Open Space			
Issues	Gaps	Opportunities	
		 opportunity for improved linkages and enhancing connectivity. Develop a local quality standard for open space and identify the number of sites, ha per 1000 meet the local standard. 	

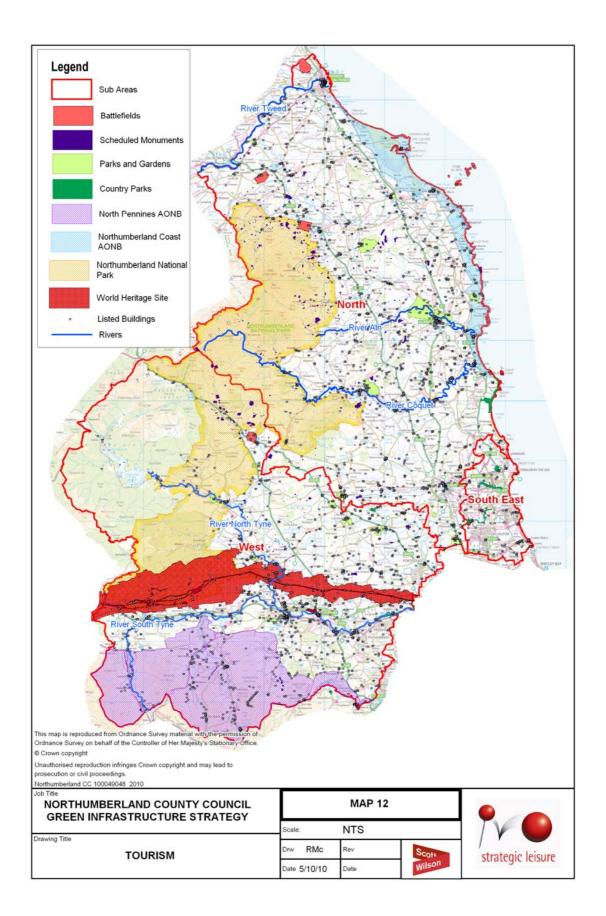
www.strategicleisure.co.uk

- 3.115 The key objectives with regards to accessible open space are to:
 - Address the current access deficiencies to open space through improved, new or enhanced recreational space that is accessible to all sectors of the community.
 - > To achieve the balance between recreational demand and nature conservation.

> To ensure all residents have equal access to a range of good quality accessible greenspace.

Tourism

- 3.116 There is a strong association between tourism and green space with many destinations in the UK built upon the availability, accessibility and quality of different types of natural environments (for example, sandy beaches, rugged coastlines, forests, moorland, wetlands, and rivers).
- 3.117 The most common form of Green Infrastructure exploited for visitors are the various rights of way that form to create a leisure route network that link with other forms of visitor infrastructure (i.e. accommodation, attractions, and other feature of interest) or act as activity provision that attract visitors in their own right (i.e. walking, cycling, and horse riding).
- 3.118 Defined green spaces can also present formalised attractions in their own right as public amenity greenspace, for example Country Estates, Wildlife Reserves, and Golf Courses space. All of these examples have a function in terms of attracting visitors, (day trip or overnight stay), and providing them with activities to enjoy during their trip. Many destination managers and organisations are therefore keen to pursue growth in green infrastructure provision, and ensure that there is clearly defined links between attractive green spaces and the wider visitor economy.
- 3.119 Northumberland has a tourism offer that is closely aligned to the provision of green infrastructure and open space, which provide the backdrop for a variety of different pursuits and activities. Tourism and Green Infrastructure are closely interrelated for all types of destination, but especially those with strong natural and heritage offers. Northumberland is certainly a case in point, consisting of a National Park and two AONBs, as well as an internationally recognised World Heritage Site and northern Europe's largest man-made lake.
- 3.120 Northumberland Tourism Ltd, the Area Tourism Partnership for Northumberland has recently produced an Area Tourism Management Plan (ATMaP) for the County (2010-2015). The ATMaP sets aims and strategic priorities for the development and promotion of tourism across Northumberland.
- 3.121 The ATMaP identifies Northumberland's key tourism assets (see Map 12) as:
 - Coast & Countryside: including Northumberland National Park, Northumberland Coast AONB, Kielder Water and Forest Park, North Pennines AONB, The major river valleys of North Tyne, South Tyne, Coquet, Aln and Tweed, scenery, open spaces, tranquillity, long sandy beaches and big skies
 - **History and Heritage**: Hadrians Wall, the many castles, Elizabethan Town Walls in Berwick, industrial heritage, Christian heritage, Reivers (family names), Flodden Battlefield
 - **Gardens:** The Alnwick Garden complemented by many others including Cragside, Wallington and Belsay
 - Outdoor activities: including walking, cycling, fishing, golf and wildlife watching
 - Local culture: including friendly people, music (traditional and new), agricultural shows, festivals, food fairs, the Northumberland flag, famous people, "Harry Potter" and other film and TV venues
 - Historic and attractive market towns and villages.



- 3.122 These are spread across the County and demonstrate that the provision of green and open space is integral to the tourism offer. The association is clearly defined for Northumberland National Park, Northumberland Coast AONB, and North Pennines AONB where the qualities of their respective natural environments are at the very essence of their tourism 'brand'.
- 3.123 The Northumberland National Park is a good example of an area where the natural environment is protected and presents some of the most attractive natural landscapes available in the UK. For this reason, the National Park attracts visitors, which, in return, present a means of supporting the local economy.
- 3.124 Hadrian's Wall, too, has a clearly defined role as a valuable green space, accessible to a variety of different users. This relationship has been formalised through the dedicated walking and cycling routes associated with the site, namely Hadrian's Wall National Path and Hadrian's Cycleway. The popularity of these routes are apparent with an estimated 400,000 walkers attracted in the first two years of opening of the National Path ¹⁰ and 160,000 trips made on the Hadrian's Cycleway ¹¹ in 2006 (81,000 the North East and 79,000 in the North West region), of which 7,500 (5%) were end-to-end users.
- 3.125 Kielder Water and Forest Park is a destination, seeking to exploit the peace and tranquillity associated with its man-made lake and surrounding natural environment. The area is being actively promoted to nature enthusiasts (most recently through successful Osprey nesting site), water sports enthusiasts, walkers, and cyclists.
- 3.126 Open space is an important tourism asset in towns such as Hexham with parks such as Hexham Park (also known as The Sele) and Tyne Green Country Park along the River Tyne and in Morpeth with Carlisle Park.
- 3.127 Despite being market towns, Alnwick and Berwick-upon-Tweed also rely on tourism assets relevant to green and open space. Alnwick Castle and Garden is striving to become a leading UK attraction whilst Berwick-upon-Tweed's location on the River Tweed, and by the sea, provides opportunities for a variety of outdoor pursuits.
- 3.128 Walking and cycling are primary activities being used to promote visits to these areas, whilst horse riding is growing in popularity in terms of demand and provision. In addition, both AONBs denote opportunities for wildlife watching and the 'wild' nature of their environments as reasons to visit.
- 3.129 The prosperity of Northumberland's rural enterprise relies on having accessible green spaces, whether formal (e.g. parklands, garden attractions, or wildlife reserves), through the provision of leisure routes, or in terms of general sightseeing. The future development of green infrastructure needs to be considered against the strategic development of tourism and the wider visitor economy of the County and wider North East region.
- 3.130 The main issues and opportunities relating to tourism are summarised in Table 3.16.

¹⁰ The Impact of Hadrian's Wall Path National Trail, Countryside Agency 2005

¹¹ The Economic Impact of Cycle Tourism in North East England, 2007 (Sustrans)

Table 3.16: Tourism – Issues and Opportunities

Tourism				
Issues	Gaps	Opportunities		
 Tourism investment tends to focus on travel, accommodation, retail, food and drink. Very little goes directly towards maintaining or improving environmental projects or to land managers. The tourism sector is not generally geared towards generating money to invest in landscape management or conservation of habitat. Most local tourism businesses are too small or only marginally profitable and therefore expecting them to contribute to landscape improvement may be difficult and challenging. The market towns and other grey infrastructure may be seen as old fashioned, crowded and as a result inaccessible to investors. There is a need to undertake capacity studies at key venues to monitor and assess the impact successful tourism initiatives is having on the natural and historic environment. 	 There is limited information on the real impact on both hard and soft infrastructure due to increased tourist activity. The quality of green infrastructure can have a negative impact on tourist appeal. The range and extent of information regarding actual visits is not consolidated or managed by a single point. There are gaps in the quality of setting and surroundings of historic, cultural and archaeological assets. There is a need to improve the management and maintenance of accessible open space. The County's woodlands and riversides are not readily accessible. 	 The environmental, historical and cultural assets of Northumberland play an important role with regards to the economy of Northumberland. The ATMaP outlines the tourism opportunities in more detail. It also identifies the key initiatives that the county is working towards in terms of continuing to ensure Northumberland is seen as tourist destination. The financial burden to the delivery of good quality multifunctional greenspace can be reduced through partnership working, and accessing available external funding. The County's woodlands and river valleys provide opportunity for commercially based outdoor activity. 		

Tourism				
Issues	Gaps	Opportunities		
 To realise that the tourism economy is strongly influenced by green infrastructure. 				

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3.131 The key objectives in relation to Tourism are to:

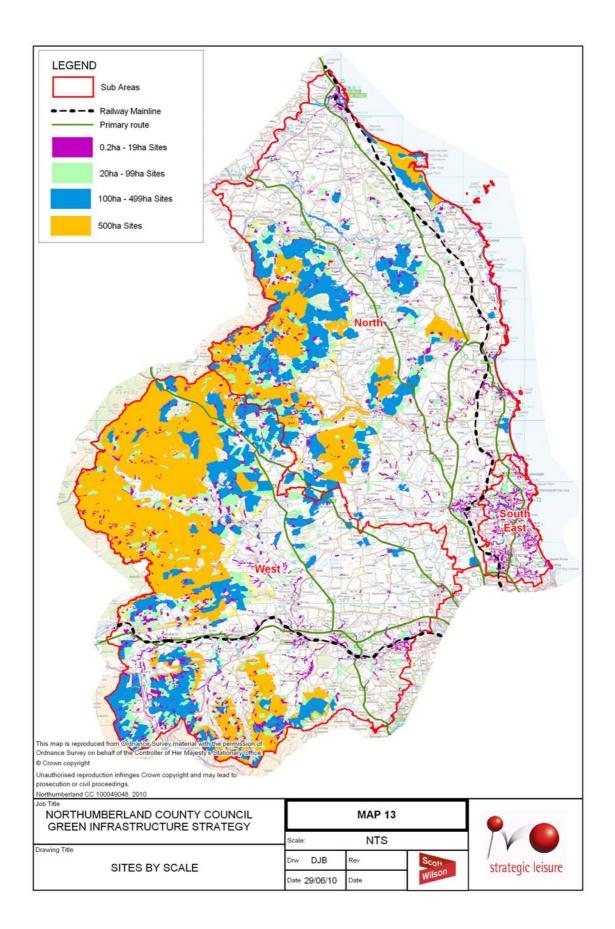
- Compliment the resources of the existing visitor facilities in order to enable sustainable existing tourist destinations across Northumberland and to increase the tourism opportunity by enhancing the visitor economy.
- To ensure that existing and new employment centres and commercial facilities are attractive in terms of setting and place in order that they can provide an attractive alternative to companies looking to relocate, develop and grow in Northumberland.
- To promote a local market place for businesses that are cost effective, energy efficient and multi functional.
- To deliver the objectives of the ATMaP.

Current Green Infrastructure Initiatives

- 3.132 The Council and its partners are currently engaged in a wide variety of environmental initiatives that aim to improve, protect and enhance the county's green assets and the many diverse habitats for the benefit of wildlife and local people. This Green Infrastructure Strategy aims to build on this.
- 3.133 The range and diversity in scale of the projects varies significantly; whilst some may be geared to improving an entire habitat type others may be driving improvement within a specific area or neighbourhood. Some of the most important green infrastructure initiatives are taking place at the local level. As such the initiatives reflect the concept that green infrastructure can be applied and understood at a variety of scales or hierarchies.
- 3.134 In the context of Northumberland the initiatives are being applied at the recognised local, sub-regional and regional scales; Appendix 3 sets out an indication of the scope and range of projects that are taking place across the County at these three recognised scales.

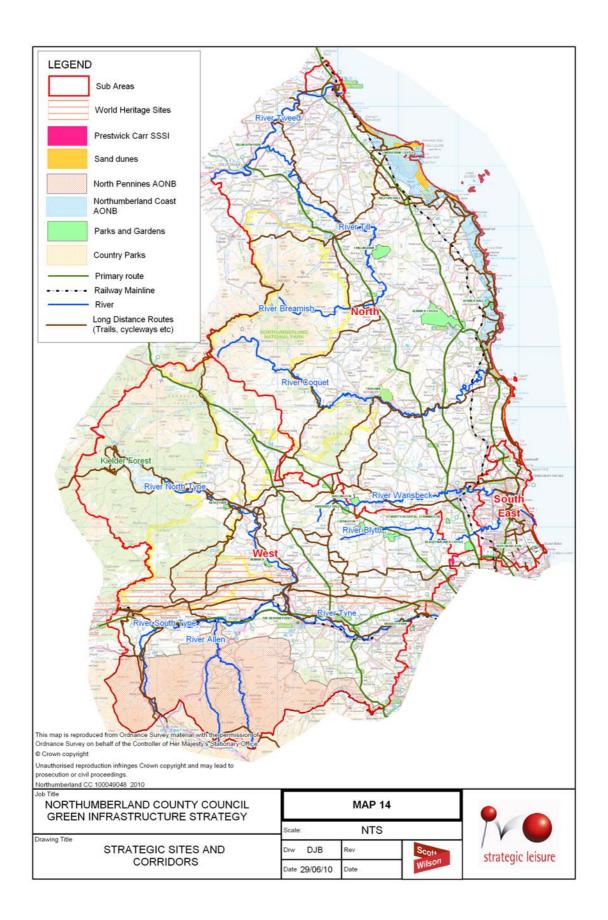
Strategic Framework

- 3.135 The development of a strategic and planned network of green infrastructure is based on the evidence outlined above and within the referenced relevant studies that have already been developed as stand alone documents in their own right (The Heat is On, Tourism Strategy, Public Rights of Way Improvement Plan etc), or developed to sit alongside this green infrastructure strategy (PPG17 Assessment (May 2011), South East Northumberland Growth Point Green Infrastructure Strategy (August 2011), Playing Pitch Strategy (April 2011)).
- 3.136 The Green Infrastructure network is based on the two strategic tiers outlined earlier (regional and sub regional) and their application to inform a simple straight forward gap analyses. (See Map 13.



- 3.137 The strategic framework focuses on land within Northumberland, it is however worth noting that there are certain GI assets that cross boundaries into neighbouring authorities and as such where there is an opportunity this has been highlighted.
- 3.138 The Green Infrastructure network can be subdivided into regional and sub regional areas and strategic corridors these can be defined as follows:
 - **Regional Areas and Strategic Corridors** these are the areas or corridors that extend the green infrastructure opportunity beyond the County boundaries
 - Sub Regional Areas and Strategic Corridors- these are the areas, sites and corridors that provide the much needed accessible greenspace that can contribute to creating a sense of place, add wildlife value or provide a multifunctional purpose
- 3.139 The above is intended to provide an insight into the opportunity to improve the connectivity between areas.
- 3.140 Strategic Areas (areas that could facilitate the 'joining up' of a range of GI Infrastructure resources) afford the opportunity for multiple approaches to enhancing green infrastructure on a wider scale, whilst Strategic Corridors offer multifunctional linear assets that can contribute to a number of green infrastructure objectives. They are often already established components that also are included in a number of other strategic documents, e.g. river corridors will be included in flood defence, tourism and right of way strategies. Both Strategic Areas and Strategic Corridors are important to biodiversity allowing the movement and migration of species.
- 3.141 The regional, and sub regional corridors, and areas are outlined in Table 3.17 and 3.18, and Map 14 below. It is also important to recognise that South East Northumberland area is a designated growth point and as such is also identified as a strategic area.

Northumberland Green Infrastructure Strategy



Regional Areas and Strategic Corridors

STRATEGIC AREA / CORRIDOR	DESCRIPTION	FUTURE GREEN INFRASTRUCTURE ROLE
Hadrian's Wall World Heritage Site	This significant site was designated as a World Heritage Site in 1987 and subsequently in 2005 becoming part of the larger Frontier of the Roman Empire in 2005. The site runs from Bowness on Solway in the West to Wallsend, north of Newcastle in the East. It is now supported through the formation of new type of company set up to develop the economy of the Hadrian's Wall Corridor through managing the World Heritage Site of Hadrian's Wall.	This involves protecting the archaeology, landscape and environment of the Scheduled Monument whilst undertaking the UNESCO requirements to increase access to the World Heritage Site by increasing educational and visitor interpretation opportunities. HWHL will achieve increased access to this important site and its component sites and the stunning landscapes in which the Wall sits through a vigorous programme of upgrading the interpretation and facilities and existing museums along the Wall Corridor, creating the 'Frontier' narrative and linking each site to the Frontier concept in a unique way, managing the Hadrian's Wall Path National Trail and Hadrian's Cycleway and developing other circular walks and cycle paths through the Corridor.
Northumberland National Park	The Northumberland National Park extends over 100,000 hectares (405sq miles) contains some 31 SSSIs, 6 Special Conservation Areas, 3 National Nature Reserves and 2 Ramsar Sites.	The National Park has an important GI role to play in terms of its contribution to Living Landscapes, an Integrated Biodiversity Delivery Area, and the green corridor network The Northumberland National Park is a good example of an area where the natural environment is protected and presents some of the most attractive natural landscapes available in the UK. For this reason, the National Park has an important future role in tourism, which contributes to a sustainable local economy.
North Pennines AONB	The North Pennines AONB, lying partially within the county boundary, covers an area of 1,983 square kilometres. The landscape of the North Pennines contains many habitats of exceptional importance. The AONB is also a UNESCO Global Geopark. The area was once an important area for lead mining	The AONB has an important GI role to play in terms of its contribution to Living Landscapes, an Integrated Biodiversity Delivery Area, and the green corridor network. Given the location of this AONB, it also forms an important connectivity role, linking Northumberland with green and open space outside

STRATEGIC AREA / CORRIDOR	DESCRIPTION	FUTURE GREEN INFRASTRUCTURE ROLE
	and ruined terraces of abandoned lead mines are now acknowledged as an intrinsic part of the landscape and heritage of the area.	its boundaries.
Kielder Forest- Kielder Water and the Border Mires	Kielder Water Forest Park (KWFP) is one of the largest areas of green infrastructure in Northumberland and covers an area of over 600 km2 in the most rural part of West Northumberland, comprising the largest man-made forest and the largest man- made lake in Northern Europe. Tourism, recreation and environmental enhancement have been consistently resourced and provided by the three landowning partners of Forestry Commission, NWL and the Calvert Trust, Kielder.	One of the UK's top water-activity resorts and a major UK forest activity zone, as well as the UK's leading night-sky interpretation centre. A model for 'car-free' transportation over a large-scale visitor area, KWFP will be seen as an attractive and varied activity destination and the natural assets will remain essential to KWFP's attractiveness. For some, it will remain, as today, a place 'to get away from it all'. However, for many, it will be a resort or leisure centre mixing outdoor activities with high quality facilities and indoor relaxation.
The Northumberland Coastal Zone	The Coastal Zone covers the whole section of the Northumberland coast, not just the AONB, as an important strategic GI corridor. The Northumberland Coast is one of the longest semi continuous dune coasts in the UK. From a green infrastructure perspective it represents 18% of the country's total dune system. The most extensive stretch being at Goswick, Holy Island and Ross Links. Smaller dune systems occur at Embleton and Druridge Bay. Holy Island, Bamburgh Castle and the Farne Islands are just three of the important strategic sites located along the coast; there are numerous other sites contained along the coast that form an integrated part of the Green Infrastructure Network	The Coastal Zone has an important GI role to play in terms of its contribution to Living Landscapes, an Integrated Biodiversity Delivery Area, the North East Priority biodiversity zone, the green corridor network, and tourism.
	These systems are extremely sensitive to both the impact of climate change, sea surges and human impact through recreation; they form an important natural sea defence and are home to some	

STRATEGIC AREA / CORRIDOR	DESCRIPTION	FUTURE GREEN INFRASTRUCTURE ROLE
	of the most diverse wildlife. They provide over 6000 hectares of habitat.	
Northumberland Coast AONB	The Northumberland Coast AONB runs 64 kilometres from Berwick to the Coquet Estuary and covers an area of 138 square kilometres. The AONB is never wider than 2.5km and only 50 metres in width at its narrowest point, yet this stretch of English countryside contains a tremendous variety of natural and historical interest. The Berwickshire and Northumberland Coast EMS extends for 115km and covers 635 square km of shore and sea from Fast Castle Head in Berwickshire, to Alnmouth in Northumberland. It includes the St Abbs and Eyemouth, Lindisfarne and the Farne Islands, all of which are some of the most dramatic coastal and seascape in the country. It has an important function as a tourist attraction in the County, and nationally. The Farne Islands supports a population of grey seals, and Lindisfarne NNR supports internationally important assemblages of wintering wildfowl.	The AONB has an important GI role to play in terms of its contribution to Living Landscapes, an Integrated Biodiversity Delivery Area, the North East Priority biodiversity zone, and the green corridor network.
Druridge Bay	Druridge Bay is a 7 mile coastal bay, stretching from Amble in the north to Cresswell in the south; it includes 3 miles of beautiful beach and sand dunes.	Druridge Bay Partnership has been formed to manage the coast in a similar co-operative management approach from south of the River Coquet Estuary to Snab Point in a similar way. The aim is to improve the understanding and appreciation of the landscape of the Bay and to positively manage the pressure for landscape change and ensure that new development and land uses are complimentary to the character and nature of the Bay. The longer term aspiration is to attain AONB status for the Bay. Druridge Bay has an important future GI role as a Living Landscape.

STRATEGIC AREA / CORRIDOR	DESCRIPTION	FUTURE GREEN INFRASTRUCTURE ROLE
Prestwick Carr	The site sits on the boundary with North Tyneside between Newcastle International Airport and Ponteland and is an important Site of Special Scientific Interest (SSSI). A core area is made up of 320 hectares of farmland that form the Prestwick Carr. The Carr is a low-lying area of farmland with extensive areas of wet and semi- wet grassland, ditches, woodland and hedges.	At specific sites including Big Waters and Weetslade there are reclaimed mine workings with a wide range of habitats and facilities that provide opportunities for the development of wildlife and 'wildlife corridors' linking habitats hence the sites importance in the Green Infrastructure network.
River Tyne Corridor (including North and South Tyne)	The River and its associated valley flows generally West to East with the South Tyne linking Haltwhistle, Haydon Bridge and Hexham, met by the North Tyne running from Kielder, and the Tyne Valley then continuing east to Prudhoe and beyond.	Whilst the river valley is wooded in parts, the whole river corridor and valley forms a strategic wildlife corridor and provides a major route from the more densely populated South East into the wider countryside.
		The River also provides important access for local people through strategic sites such as the Tyne Green Country Park, Tyne Riverside Country Park and Corbridge riverside park. Other strategic sites include Hollow Meadows at Bridge End and Spontwell Lane Riverside Walk. The North Tyne also is home to two important Country Estates namely Hesleyside and Nunwick both on English Heritage Register of Parks and Gardens and both are Grade II listed. The South Tyne leads out into the wilder North Pennine Area of Outstanding Natural Beauty.
River Coquet Corridor	The River Coquet forms another important corridor again running from the Cheviot Hills close to the Scottish Borders in the North West to the North Sea at Amble. The entire length of the river is a designated Site of Special Scientific Interest (SSSI); one of 27 rivers in the Country to achieve the designation.	As the Coquet is an excellent example of a clean river system it is of high conservation and ecological value. The river corridor is relatively undisturbed and as such is home to a variety of rare and protected species. Within the Coquet catchment there are 10 other sites that are designated SSSIs including hay meadow, woodland and the estuary. The river also provides for informal recreational needs for many

STRATEGIC AREA / CORRIDOR	DESCRIPTION	FUTURE GREEN INFRASTRUCTURE ROLE
		of the rural small settlements along its course. At the eastern edge it links to the Warkworth Dunes and Saltmarsh running northwards and the Northumberland shore running south.
River Tweed, Till and Breamish Corridor	The River Tweed, River Breamish and Till are of significant importance and value as they are mainly designated as SSSIs and therefore provide valuable ecological and wildlife value. The Tweed Valley is an interesting Glacial Valley and is bounded by Ancient Woodland. The Till Valley is also home to the Grade II* listed Tillmouth Estate, Grade II Listed Chillingham Estate, Etal Castle and the Etal and Ford Estate.	The River Till has a wetland restoration initiative that involves partnership working with farmers and land owners in an attempt to reconnect the river with its natural flood plain. The upper sections of the Till are known as the River Breamish; this has seen environmental initiatives to improve the habitat of the Brown Trout. The River Beamish flows east to north and crosses the A697 corridor (which runs north to south), which in turn then crosses the river Aln which flows west to east to the coast and thereby has the potential to provide an important corridor the links the Scottish Borders with the National Park and ultimately the coast.
River Wansbeck and River Blyth Corridors	The main River Wansbeck has two main tributaries, the River Font and Hart Burn which join the Wansbeck upstream of Morpeth. The River Wansbeck has its source at Sweethope Loughs and flows in an easterly direction passing through the settlements of Kirk Whelpington, Mitford, Morpeth, and Ashington to the North Sea. The River Blyth has one main tributary, the River Pont which has its confluence with the Blyth just upstream of the A1 road bridge. The river Blyth flows eastwards through southern Northumberland into the North Sea at Blyth. It passes through Plessey Woods Country Park. The Wansbeck Riverside Park provides an important recreation corridor for local people. The river has the Country Estates of	The Wansbeck and the Blyth are important corridors in an urban context and as such they connect the wider countryside and the coast and therefore provide a valuable corridor that allows wildlife to move. The two rivers cross the busy A1 corridor and in doing so allow movement north and south as well as east to west. The Wansbeck is currently undergoing improvement to the connectivity and quality of the riverside walk from Bothal to Whorral Bank with the view to improving connectivity and the potential of future linkage through Ashington to the Coast.

STRATEGIC AREA / CORRIDOR	DESCRIPTION	FUTURE GREEN INFRASTRUCTURE ROLE
	 Wallington owned and managed by the National Trust and an important regional attraction and Kirkharle with its lake and landscape originated by the famous landscape designer Capability Brown and is also an important arts and craft designation for visiting tourists. Both Plessey Woods and Bedlington Country Park provide important greenspace on the river as it flows through the more urban areas towards the coast. 	
River Allen Corridor	The river is formed at the confluence of the Rivers East and West Allen at Cupola. The river follows a steep gradient due to its catchment and impervious geology. The river's catchment is the North Pennines and some of the largest areas designated as SSSI in the County, namely the Hexhamshire. Allendale and Whitefield Moors. The catchment is however largely rural in nature, the only significant sized settlement being Allendale Town on the East Allen.	The river provides an important link into Neighbouring County Durham, and therefore is a strategic link connecting Northumberland GI with that outside the County.
River Aln Corridor	The River Aln runs through Northumberland, discharging into the North Sea on the east coast of England. The river gives its name to the town of Alnwick and to the village of Alnmouth, and its source, Alnham in the Cheviot Hills. The Aln is a relatively small river but has been important through history; it is one of the boundaries along which English and Scottish troops marching to war had to cross. The river flows past Alnwick Castle which was built to defend the boundary.	The more remote or central areas of the County such as the Alr have the potential to enhance the green infrastructure framework, and contribute to increased connectivity within the County.
Road and rail routes	A range of strategic transport routes across and up and down the County, providing the opportunity for movement between settlements.	The strategic transport corridors form part of the the main framework upon which the GI network can be built. They provid an essential opportunity to link GI on a regional scale. There is significant opportunity to make some routes 'greener' by

STRATEGIC AREA / CORRIDOR	DESCRIPTION	FUTURE GREEN INFRASTRUCTURE ROLE
		incorporating greenspce into their design/existing framework.
National trails and corridors	A range of walking/cycling routes across and up and down the County, providing the opportunity for movement of both humans and wildlife.	The national trails and corridors form part of the the main framework upon which the GI network can be built. They provide an essential opportunity to lbetter ink GI on a regional scale, whilst developing more places/sites for wildlife, biodiversity etc. They also have the potential to contribute significantly to sustainable transport and healthier lifestyles.

- 3.142 The regional areas and strategic corridors form the main framework upon which the GI network can be built. They provide an essential opportunity to link GI on a regional scale, in parts they are already providing the means for wildlife to establish, migrate and move, they already provide a multifunctional purpose serving as facilities for recreation, tourism, historic or landscape interest. They also provide the opportunity for mitigating flooding and combating predicted climate change.
- 3.143 The opportunity lies in the fact that by their very nature these sites run north to south parallel to the County boundaries on the western and eastern fringes or the cut across the County running west to east.
- 3.144 They are in some instances already managed and promoted to an international, national audience such as Hadrian's Wall World Heritage Site, or Northumberland Coast AONB. Sites such as Kielder Water and Forest and Druridge Bay have the potential to be enhanced and therefore extend the appeal and opportunity for wildlife and habitat creation, whilst also creating wider appeal as tourist destinations. They will also extend the linkages; in the case of Kielder it will link not only areas of the Northumberland National Park but also across the county boundary into Cumbria and the borders. In the case of Druridge Bay there is an aspiration to extend the Northumberland Coast AONB southwards.
- 3.145 The County's rivers provide the strategic corridors that have the real potential to enhance the framework, not only on the margins such as the River Tweed or the Tyne but also through more remote or central areas of the County such as the Coquet, Allen and Aln.

Sub Regional Areas and Strategic Corridors

- 3.146 If the regional areas and strategic corridors form the framework for the County's GI network then the sub regional areas and sub regional strategic corridors form the nuts and bolts that hold the framework together. These vary in size nature and character and provide many of the most accessible sites for both wildlife and people.
- 3.147 They are dispersed across the county and serve to attract both visitors to the county and local people. In some instances they are recognised for their historic legacy or landscape value such as the Registered Parks and Gardens (Country Estates) in others they provide local people with the opportunity to access nature on their doorstep such as the designated Local Nature Reserves (LNRs) or Local Sites of Wildlife or Geological Interest.
- 3.148 They also connect to, or provide the opportunity to connect, the areas and strategic corridors and often serve as a hub that connects to several spokes or corridors.

Sub Regional Areas and Strategic Areas

Country Parks

- 3.149 Country Parks developed due to the increasing pressure on the nation's National Parks; they evolved from the necessity to provide urban communities with the opportunity to experience nature and recreation and the countryside close to where they live rather than travelling out to the more sensitive areas and honey-pot centres within the National Parks.
- 3.150 Northumberland is well served by its network of country parks and these prove an essential part of the green network. Several form important links within the green corridors providing opportunity for informal recreation along the river corridors as discussed earlier.
- 3.151 In Northumberland there are 8 sites that are classed as Country Parks, shown below in Table 4.18.Natural England has developed the country parks' accreditation scheme; however, as yet none of NCC's Country Parks have been put forward as part of the scheme.

Registered Parks and Gardens (Country Estates)

3.152 The English Heritage 'Register of Historic Parks and Gardens of special historic interest in England', established in 1983 has recorded sites in Northumberland. These sites are important to the green network as they form hubs of interest due to their wildlife value, historic interest and high quality landscapes that often provide a tourist interest. The sites are shown in Table 3.18:

SUB REGIONAL AREA/STRATEGIC AREA		FUTURE GREEN INFRASTRUCTURE ROLE
	Cragside	
	Tillmouth Park	These sites have the potential to act as links between other green spaces; they also act as the 'nuts and bolts' connecting
	Hesleyside	into and between other parts of the green network across the County.
	The Hexham Parks	Some of these sites have the potential to be 'hub sites' in a similar manner to the country parks.
	Wallington Hall	country parks.
Registered Parks and Gardens	Alnwick Castle	
5	Chillingham	
	Kirkharle Hall	
	Howick Hall	
	Bedford Hall	
	Blagdon Hall	
	Lindisfarne Castle	
	Seaton Delaval Hall	
	Capheaton Hall	
	Belsay Hall	
	St Mary's Hospital, Stannington	

SUB REGIONAL AREA/STRATEGIC AREA		FUTURE GREEN INFRASTRUCTURE ROLE
	NunwickBradley Park	
Druridge Bay Country Park	Druridge Bay Country Park can be found off the A1068, 3 miles south of Amble. The Park comprises three miles of beach and sand dunes, plus a large freshwater lake (Ladyburn) surrounded by woods and meadows. The lake is available for launching windsurfers and non-motorised boats (by permit), and sailing, windsurfing and canoeing	An essential part of the green network linking the Bay to inland green space, and more urban areas providing opportunity for informal recreation, and sustainable transport routes. This is a potential 'hub' of the GI network.
Plessey Woods Country Park	Plessey Woods Country Park is located near Hartford Bridge, off the A192, mid way between Bedlington and Cramlington and about 5 miles south of Morpeth. The Park offers 100 acres of woodland, meadow and riverside. The woodland is home to many birds such as the great spotted woodpecker, nuthatch and tree creeper, as well as animals including red squirrel, roe deer and fox. The banks of the River Blyth are also an important habitat for wildlife, such as kingfishers, dippers and otters.	A potential 'hub' of the GI network, this country park could link a number of market towns to open space, woodland and the River Blyth, providing extended access to green space, and increased opportunities for informal recreation.
Tyne Riverside Country Park	Tyne Riverside Park Centre is located at Low Prudhoe on the banks of the river Tyne near Prudhoe railway station. The Park Centre provides public toilets, but is	Providing an opportunity to link the local railway transport routes to the GI network to encourage use for more sustainable walking and cycling, this country park could

SUB REGIONAL AREA/STRATEGIC AREA		FUTURE GREEN INFRASTRUCTURE ROLE
	not otherwise available to the public on a daily basis, although changing facilities and rooms for hire are available by arrangement. Other facilities at Low Prudhoe include picnic benches, a young children's play area and canoe launch area. The Country Park is a short walk from Wylam and Prudhoe train stations and Tyne Valley bus routes. The Country Park follows the River Tyne for four miles through 200 acres of meadows, chalk grassland, woodland and river bank all within easy reach of the urban areas of Northumberland and a short distance from Newcastle and Gateshead.	also act as a 'hub' linking greenspace to the river bank, for formal and informal recreation.
Bolam Lake Country Park	Bolam Lake Country Park lies about 9 miles west of Morpeth and is signposted off the A696 from Belsay. It is situated in the heart of the beautiful Northumberland countryside surrounded by historic landscapes and dramatic views. It has lakeside, woodland and open grassed areas and lakeside walk. For many years Bolam Lake has been a popular place for a day in the countryside.	There is potential for this country park to be better connected into the urban area, to improve access to the countryside, and increase opportunities for participation in formal and informal recreation.
Bedlington Country Park	Bedlington Country Park covers approximately 57 hectares of woodland and grassland on the north banks of River Blyth. The Country Park can be reached by bus, which stops at Hartford Hall,	An important 'hub' linking countryside into the urban area, and providing opportunities for informal recreation, access to river banks, sustainable transport routes and potentially increased awareness of areas of

SUB REGIONAL AREA/STRATEGIC AREA		FUTURE GREEN INFRASTRUCTURE ROLE
	Bedlington Front Street and beside the Bank Top Public House (Bedlington Station). There are three car parks within the site, at Furnace Bridge, at the bottom of Bedlington Bank, Attlee Park and at Humford Mill. Pedestrian access is also available from Spring Park Road, Church Lane (leads to Humford Mill) and Hartford Hall. The park is a steep sloping, natural wooded valley which runs from the old Bedlington Iron Works site at Furnace Bridge in the east, through Attlee Park at the bottom of Bedlington Bank, beside Bedlington Bridge and the A193 road, west towards Humford Mill and Hartford Hall to the west. The area has long been a popular area for informal recreation over many decades until 1984 when the Country Park was created to protect the unique nature of the area. In 2006 Local Nature Reserve status was gained.	nature conservation and biodiversity.
Tyne Green, Hexham	Tyne Green in Hexham is a beautiful strip of public land which runs along side the river Tyne. Tyne Green Country Park has a circular 2.5 mile or 4 mile wayward marked trail around the country park. Also available is a 9-hole municipal golf course, fishing (by permit), children's play area, picnic benches and several barbecues	The country park has the potential to become a more important 'hub' within the GI network, if it could be linked to the Northumberland National Park and potentially to Hexham Abbey; this would extend existing opportunities for informal recreation and access to areas of open and green space.

SUB REGIONAL AREA/STRATEGIC AREA		FUTURE GREEN INFRASTRUCTURE ROLE	
Wansbeck Riverside Park	Wansbeck Riverside Park covers approximately 112 hectares of woodland, grassland and the river. The site is located to the south of Ashington between the A1068 and A189. There are car parks located at Blackclose Dene (just off Stakeford Bridge, A196 heading north to Ashington) and the main car park off the Wellhead Dene road (accessed from the A1068 - Sheepwash road). Access to the north bank can be gain by foot from Sandy Bay the A197 road, North Seaton Colliery, Rowlington Dene, Nursery Park Estate, Blackclose Dene, Fallowfield Estate, Wellhead Dene, Caravan Site access road and Sheepwash Bridge. Access to the south bank can be gained by foot from West Sleekburn, Millburn Grange Estate, River Bank Estate, East Ford Road, Stakeford Bridge, Stakeford and Ringway Estate. The park is a popular area for informal activities such as walking, bird watching and picnicking as well as organised activities such as rowing and fishing. In 2003 Castle Island gained status as a Local Nature Reserve, Wansbeck Riverside Park Local Nature Reserve status was gained in 2007	The country park is an important 'hub' for the GI network linking the urban area to the countryside, river and woodlands, which could facilitate increased future use of sustainable transport routes. The 'hub' also links Nature Conservation areas into the GI network.	
QEII Country Park	QE II Country Park is located on the north edge of Ashington between the A197 and the A189, with the main car park off the A189. It is popular for walking, dog	There is potential to increase the important link between the coast and urban areas, through development of the country park as a 'hub', for sustainable transport routes,	

SUB REGIONAL AREA/STRATEGIC AREA		FUTURE GREEN INFRASTRUCTURE ROLE
	walking, picnicking and jogging, as well as wind surfing, canoeing and coarse fishing on the lake. Accessible fishing platforms make the site suitable for fishing for the less able including wheel chair users. The site can also be accessed by footpath or by the Coast and Castles Cycle route out of Ashington, or from Woodhorn Colliery Museum.	informal and formal recreation.
Blyth and Seaton Sluice Links and Foreshore - Important Strategic Area	Located between Blyth and the county boundary at Seaton Sluice, there are 5km of bays, links and foreshore. The bay consists of dunes and rock pools, with much wildlife inhabiting areas along the coastline. The dune system between Blyth and Seaton Sluice, is a local nature reserve, recognised nationally for its diverse flora and fauna. The dunes attract many migrant birds both in spring and autumn and have good communities of reptiles and invertebrates that are regionally and nationally important. The plant communities reflect past management of the area especially at the southern end where non native species like "Prince of Wales Tea Tree" and rarities like "Bee Orchids" can be found. In all, four species of "Orchid" and five species of "Cranesbills" or wild Geraniums can be found amongst the numerous wild flowers and grasses growing on the dunes.	These sluice links have the potential to be further recognised as strategically important links between the coast, the urban area of Blyth, and nationally renowned biodiversity and wildlife sites. There is potential for these existing strategic links to be better connected into the overall green network, and particularly sustainable transport routes between the coastal area and inland urban areas.

Cross Boundary Opportunities with Neighbouring Authorities

- 3.154 To understand the Green Infrastructure network in the wider context it is necessary to consider the opportunities and links with neighbouring local authorities.
 - Scottish Borders The key opportunities are in the water course of the River Tweed, Liddel Water, Black Adder Water in the north of the county. The transport networks also serve as corridors for cross border movement these are mainly the A1 and the A698 and the East Coast Railway .The Border Forest links habitat within the Northumberland National Park and Kielder Forest Park. The Coast North of the River Tweed also provides opportunity as it extends northwards through Lamberton Beach. There are also the National Cycle Routes and the Pennine Way long distance footpath that passes through the Borders at Kirk Yetholm.
 - **Newcastle** The River Tyne is an important corridor that includes leisure sites and greenspaces linked to the river. There are Public Rights of Way linking along the river into Northumberland. The Reivers and Sea to Sea cycleway also allow movement between Newcastle and Northumberland. Big Waters Nature Reserve on the edge of Newcastle and North Tyneside border formed near to Seaton Burn with National Cycling Route 10 passing nearby providing a link between Big Waters and the wider countryside.
 - **Gateshead** The River Tyne is an important corridor that includes leisure sites and greenspaces linked to the river. There are Public Rights of Way, and cycleways linking along the river into Gateshead.
 - **North Tyneside** The River Tyne and the Northumberland Coast are the most obvious opportunities for cross border working and potential for Green Infrastructure. Similar to Newcastle the National Cycle network and transport routes such as the A1 and East Coast Railway.
 - **Cumbria** the Northumberland National Park, North Pennines AONB and Gilderdale Forest are the main opportunities for cross border GI Initiatives. There are also the long distance cycle routes and the Pennine Way that link the two counties. The River South Tyne at Alston, and the Irthing flowing out of Northumberland into Cumbria at Gilsland also provide connectivity opportunities.
 - **County Durham** The North Pennines AONB provide an opportunity for cross border GI initiatives. Derwent Water is a key opportunity located on the border between Northumberland and County Durham. There are also the smaller commons at Stanhope and Muggleswick that may also provide further potential. The long distance routes and National Cycleway also serve to link the two counties and beyond.

Key Challenges for future GI Provision to Address

3.155 The overall key challenges for future provision of green infrastructure, resulting from both the existing natural environment and the human influence on this environment are summarised in Table 3.19 below:

Natural Resource Key Challenges	Human Impact Key Challenges	
Maintaining the natural and historic character of the County	 To recognise that the rich variety of current land uses are intrinsically linked to the past 	
Understanding the county's hydrology and its potential influence on economic and social redevelopment	 To recognise that the differing settlement patterns (intense urban in parts and sparse rural in others) has led to a 	

Table 3.19: Summary of Key Challenges

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Natural Resource Key Challenges		Human Impact Key Challenges	
	at regional and sub regional levels	variation in the provision of accessible public open space	
•	Recognising the diverse nature of the County's ecological and biodiversity assets and the contribution they make to local distinctiveness and their wider importance	• There is a significant variation in the quality of the public open space provision as identified through the PPG17 Assessment audit	
•	To undertake proactive positive management that ensures the County's natural resource is sustainable both now and in the future	• There is a variation in the provision of public rights of way across the county with some areas well served by a well connected fluent network, whilst other areas have a fragmented disjointed network	
•	Ensuring that the natural resources are adaptable to predicted climate change and resultant changes in species diversity, migration and range	• There is no information on the carrying capacity or influence of visitor activity on recreational land or on sensitive ecological habitats	
•	To recognise that the future of biodiversity lies in improving connectivity between habitats and sites and ensuring these connections are functional and robust	• The extraction of natural resources and the lasting impact on the natural environment needs careful consideration	

Climate Change

- 3.156 A further key challenge for GI provision moving forward is Climate Change.
- 3.157 Climate change has the potential to have a significant impact on the natural and historic landscape of Northumberland and there is a need to consider the opportunities and issues facing the County's Green Infrastructure resource as a result of predicted change.
- 3.158 Of all the habitats it is the coast and coastal zone where the most marked changes are likely to occur. Climate change is already having noticeable impacts on the marine environment of the county with controls in place along the coast to control the potential for overfishing and the resultant effects on the sea- bird population.
- 3.159 Sea level increases are likely to impact on the County's coast and coastal habitats especially the more fragile systems such as the extensive dune system. Sea level rise as a result of climate change will lead to accelerated rates of erosion and reduction in the availability of fresh material from which the dunes form. The increase in hard structures on the landward side of the dune systems prevents the dunes from naturally migrating inland and as such dunes may be forced backwards and eventually diminish and disappear. Druridge Bay is one area where the dune system is not backed by hard structures and therefore the dune system may naturally roll further inland.
- 3.160 Climate change will impact on wetland habitats with the risk of intrusion to fresh water wetlands from sea water, or the risk of them becoming increasingly brackish, as they dry out during periods of drought.

- 3.161 Soil type and soil structure may change due to potential variations and changes to the water table this will lead to a change in the type of plants that grow, in turn leading to a change in the animals and insects that feed on them.
- 3.162 Landscape patterns may shift as farmers move from current animal stock of beef and sheep to arable crops such as cereal, oil seed and root crops, thereby potentially increasing the need to source water supplies during prolonged dry spells for irrigation and subsequently the potential for increased wind blown soil erosion.
- 3.163 Woodlands will potentially be affected through stress caused to trees caused by summer droughts and therefore the likelihood of increased susceptibility to disease. Direct tree death is a concern especially amongst mature trees as they play host to numerous wildlife species this in turn may have a significant impact on the future woodland structure.
- 3.164 Climate change is likely to impact on the County's access and recreational assets as it is likely to put increased pressure on recreational sites and the rights of way network. As such they will require additional management and maintenance due to warmer drier summers leading to an increase in people using the resources, increased cutting to grass surfaces such as picnic areas as the growing season extends.
- 3.165 Increased flooding incidents will affect bridges and footpaths especially those on the coast and along riverbanks as water-logging and path washout may occur especially on the steeper terrain.
- 3.166 The Planning Policy Statement 1 (PPS1) states that when development plans are in place they should take into consideration the possible affects that it might have on climate change. It also advises that planners should assess the potential impact of the environment on proposed developments and this can be achieved by taking into consideration the impacts of climate change and avoiding developing in areas which are at risk of flooding.
- 3.167 The PPS1 goes on to suggest that planning authorities should seek to locate developments where everyone is able to access the services and facilities on foot, bicycle or public transport rather than rely on cars.
- 3.168 PPS9 discusses biodiversity and geological conservation and highlights the fact that, over time, climate change will affect the distribution of habitats and species and this needs to be taken into consideration through the planning system. The PPS9 also identifies the importance of a good base of information, which assists planners in recognising the extent and distribution of natural greenspace, and in particular those which are more vulnerable to the effects of climate change.
- 3.169 Climate change is discussed in more detail in the Northumberland Strategic Partnerships strategic framework for climate change planning 'The Heat is On'¹².

¹² '**The Heat is On**' The Strategic Framework for Climate Change Planning in Northumberland (2007) Northumberland Strategic Partnership www.scottwilson.com

Section 4 - Delivering the Future Green Infrastructure in Northumberland



4 Delivering the Future Green Infrastructure in Northumberland

Articulating the Vision

- 4.1 Northumberland is about to see an extended and potential extensive period of growth and development especially in the South East through the New Growth Point status, the potential changes to the Green Belt and planned development of sustainable energy operations offshore along the coast along with environmental tourism opportunities at places such as Kielder. This will bring with it change, change to the built environment linked to a potential increase in prosperity and to the character of the County through change to the physical and historic landscape. A positive opportunity exists to influence, enhance and improve the natural environment through the creation of a network of accessible multi functional greenspace. This will need to be carefully planned to consider the implications on the County's green infrastructure at the widest scale at regional and sub regional levels. This will only be achieved through placing green infrastructure at the very forefront of any planning policy to ensure the integration of green infrastructure into the planning and development process.
- 4.2 The vision is to create a network of multi-functional man made, natural and semi natural assets, which together provide a quality and beneficial environment, supporting both people and wildlife, as set out below and in paragraph 1.27.
 - To ensure that planned and future development makes a significant contribution to the unique natural character, cultural diversity and historic interest of Northumberland.
 - To provide real opportunity to improve connectivity between habitats and GI assets through a co-ordinated partnership approach between NCC, its partners, developers and landowners.
 - To provide well-managed, safe and attractive environments and to create improved recreational opportunity through the provision of readily accessible facilities for local people.
 - To provide a strategic framework, supported by a robust evidence base, to guide new development and secure high quality design whilst extending real opportunity for improved access and biodiversity.
 - To ensure that access for all lies at the heart of green infrastructure improvement and reflects opportunities for tourism, rights of way enhancement and improvement to both public transport and cycling opportunities.
 - To respond to more global environmental issues such as climate change and improved water management through the provision of multi-functional, well-connected, fit for purpose green infrastructure.
- 4.3 Through a new and considered approach to planning for Green Infrastructure the County will benefit through an enhanced natural environment and a strong sense of place that ripples out across the whole county from the most remote areas to the most densely populated urban communities.
- 4.4 The County is already well served by a range of green infrastructure assets from the designated, protected sites, historic environments and registered parks and gardens. They already combine in parts with the ancient woodlands, local areas important for wildlife or geological interest and they already attract an array of visitors for traditional family days out, to the more adventure activities or to observe and learn about some of the UK's rare and colourful wildlife. Much has already been achieved to soften the impact of the County's commercial retail centres, business parks or traditional transport routes. But there is still much more to achieve.
- 4.5 Work has already been undertaken leading to the creation of green transport routes, upgraded areas of the existing rights of way, riversides, woodlands, disused railway, wagon-way lines, and permissive

routes. This has been undertaken in an attempt to improve the connectivity and to promote opportunity for sustainable movement, 'green' exercise, and importantly allow all users to get to know the historical and natural characteristics of their surroundings.

- 4.6 These routes are not just about people, however, as they are also being used to promote habitat creation and wildlife movement, raising the levels of biodiversity in the area and allowing important species to prosper. The natural environment, particularly the coastal zone, the woodlands and the rivers and estuaries of the County are already significant assets. It is hoped that rather than being discrete or isolated conservation zones, they will form a collective asset that facilitates greater enjoyment, learning, and healthier lifestyles through a continuum of accessible green and open spaces.
- 4.7 The change in the approach to green infrastructure has to be planned and co-ordinated across the many organisations that are currently involved in improving the environmental character of existing sites so revered by local people. Whilst recognising and nurturing the opportunity new developments bring to ensure that they have a green infrastructure function and value.
- 4.8 This approach has to be based on a clear understanding of the cumulative benefits that green infrastructure has in terms of promoting Northumberland as a quality place to live, to work and to visit. In this respect, Green Infrastructure truly is a critical infrastructure for Northumberland.
- 4.9 The catalyst for this change will be the development of proactive planning policies that place green infrastructure in the widest sense at the heart of new development and places a real emphasis on 'greening' the design, and the fact that 'green' landform underpins the creation of attractive and sustainable environments.
- 4.10 Furthermore, the partnership between Northumberland Council, Natural England, Groundwork Trust, the various conservation agencies, landowners and the private sector that are each investing in green spaces across the Northumberland area has already established a framework from which to build and have a real impact on the wider green infrastructure network.

Key Recommendations for Policy and Implementation

4.11 The purpose of this section is to set out recommendations for achieving the GI Vision, aims and principles identified in Section 1. The recommendations will form the basis of a GI Strategy Implementation Plan, which will address and reflect the key challenges set out in both Sections 1 and 3.

Landscape Character and Historic Environment

- 4.12 Create a greater sense of place within Northumberland by promoting development design that will lead to significant environmental enhancement
- 4.13 It is clear that the natural and historical landscape of Northumberland has been changed by industrial residential and agricultural development. Now, in the 21st Century, the opportunity exists for Northumberland through possibilities such as the Growth Point status of the South East, to use development to shape an improved and enhanced landscape character; one that is more visually appealing, with plenty of green spaces to explore and use, and which will be utilised and appreciated by future generations.
- 4.14 Projections suggest that the population will grow considerably in the future combined with planned new development and industrial investment. These will all lead to new built environments or the reclamation of previously built environments, which include housing, offices and industrial space. This opportunity must be capitalised upon to create new, greener landscapes that offer opportunities for recreation in green spaces close to people's home and work places.
- 4.15 Appropriately designed, and using clear landscape development guidance, known development housing, retail and commercial sector projects offer an opportunity to change the landscape character for the better; this in turn will allow the people that live in, work in and visit the area to interplay with the

green and historic places and spaces available to them, i.e. those areas where they will formulate their 'sense of place'.

- 4.16 GI should be at the forefront of this approach, as set out in the following bullet points:
 - GI should be used as a means of ensuring that new development, where appropriate, supports the wider objectives for developing clean, green and safe places for people to enjoy. Development needs to be underpinned by a strong 'green' context which identifies specific measures in terms of the contribution development will make to improving the attractiveness of existing urban forms as well as those being newly created. Landscape design guidance for the different development areas would be a useful tool for both planners and developers in this regard.
 - Where possible planning policy needs to consider and enhance the setting of historic assets.
 - Where possible, development needs to give consideration to retaining or creating vistas of the area's green spaces such as agricultural land, rivers, estuaries and coast to establish strong visual linkages, edges and gateways. The characteristics of the rivers and estuaries need to be upgraded to promote public access amongst pedestrians, and where appropriate, cyclists and riders.
 - Important green spaces within, or close to, settlements need to be protected and conserved, and potentially to include some 'green' buffering that will preclude any development that would damage or deter usage of GI directly adjacent to settlements.
 - Stronger boundary definitions around the settlement areas should be created to restrict the impact of urban development on the character of the surrounding countryside. This is particularly true in relation to the neighbouring National Park and AONBs.
 - Using the reclaimed mineral and opencast mining works as a means to create further accessible woodland, lakes and other natural spaces.
 - The ANGSt standards highlight that new green and open spaces accessible to the public will be required, particularly in terms of 2+ha sites associated with the existing settlements in particular around the new growth points and in the southern areas around Ponteland. The Council should utilise the planning process, development design, and developer contributions to fill these gaps in provision.
 - The role of the coast needs to be conserved and protected for the benefit of public access, with GI utilised as a means of deriving these areas as multifunctional spaces. The opportunity to extend the coastal AONB southwards at Druridge Bay provides a real opportunity to allow greater access for some of the most populated areas of the county.
 - The role and function of the Registered Parks and Gardens needs to be recognised and where possible the network of these often historic estates need to be extended to those estates not on the register, which have potential to extend the greenspace network. It may also be worth considering the role of the County's Castles and their associated grounds as serving a similar purpose and point of interest for local people, visitors and wildlife.
 - There is a need to protect and conserve the distinctive character of the County's river valleys.
- 4.17 Recommendations for Landscape Shaping through Green Infrastructure:

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- Use the planning process and the opportunity for change to deliver greater impetus for improving the quality of the character of the environment within urban and rural settlements across Northumberland.
- Establish design guide principles to ensure that future development and projects present real improvements to the landscape and historic environmental character of Northumberland.
- Use the Grey-Green Continuum ie the opportunity to link greenspace with other existing infrastructure such as roads, and the built environment, approach to assist in integrating shades of 'greenness' into other forms of urban development (e.g. transportation; industrial).
- Address the gaps in existing GI provision identified through the ANGSt criteria, which in turn is to be used to encourage initiatives from the public, private and voluntary sector.
- Work with associated landowners to ensure that sites of historic importance such as the country estates and castles make a significant contribution in the green network as potential hub sites.
- It will be important to use the historic settlement patterns to inform future development and to consider listed buildings in their wider context and setting to limit any developmental impact on their value.
- To allow people to closely interact with their cultural and historical legacy by making sites more accessible.
- To enhance and improve the river corridors using best practice sustainable land and water management to protect the nature and character whilst also enhancing the recreational potential and biodiversity value.

Sustainable Green Transport Network

- 4.18 Establish a sustainable transport network to connect the green spaces locally to ensure ease of access, and sub-regionally to be enjoyed by walkers, cyclists, and horse riders.
- 4.19 Building upon the provision that already exists (e.g. existing PROW, off-road cycle paths, and National Cycle Network Routes and long distance routes such as the Pennine Way, Castles to Coast and Coast to Coast route) an integrated leisure and recreation network is a fundamental requirement for GI in Northumberland. At a sub regional level, this requirement is to enable easy access to neighbourhood-based assets such as local parks, allotments, waterways, natural spaces and other important places for people to relax and enjoy.
- 4.20 At a regional level, the network should link settlements with the principle green infrastructure framework of strategic areas and corridors, particularly those on the fringes of the county and adjoining areas, the coast and the countryside in the form a north-south, east-west grid-style network pattern across Northumberland. The majority of this network should ideally be off-road using existing and upgraded PROW, byways, and wagonways and designated 'quiet lanes', avoiding busy roads wherever possible. In between, the routes should incorporate natural features and countryside settings such as rivers, streams, lakes, woodland and open green spaces, as well as historic features in the landscape, which offer suitable interpretation. Key recommendations to improve the network are set out below:
 - Local parks and green spaces in urban centres are to be linked via a series of safe footpaths and designated cycle lanes lined with appropriate planting eg trees/shrubs/hedges, with greater people permeability enabled through measures to overcome traffic obstacles (e.g. road/rail crossings).

- The rivers and estuaries should become synonymous with providing safe linear green corridors that provide links between urban and rural areas. The river corridors will respectively, represent key landscape and leisure reference points for the whole of Northumberland.
- Urban-to-country circular and linear routes should be used to link key assets on the urban fringe to settlements, using the grey-green continuum to delineate the different shades of 'greenness' to be incorporated into the different corridors identified.
- Assets should also be linked with public transport to allow people to have a multi-modal journey to the countryside.
- Natural and historic sites of importance already identified should, (where appropriate, based on the individual circumstances of the site), be incorporated into the leisure route network. These should be designed to present interpretation centres/boards at key locations, resting areas, shelters and viewing points.
- Consideration should be given to connecting new amenities to the leisure network as they are developed, with Northumberlandia providing a useful example of an existing project that should be linked to the green network.
- The inclusion of other initiatives from the arts should be considered to create additional interest, with innovative techniques such as water features, topiary, lighting and sound to enhance the experience. These can be designed to present interpretation centres/boards at key locations, resting areas, shelters and viewing points (not in tranquil, dark and unspoilt, remote rural routes).
- Horse riding routes should include separated bridle paths and dedicated 'gallop' areas where possible, using woodland areas where appropriate and other open space sites. Access to privately owned land should be encouraged through stewardship schemes and through TROT¹³ for example.
- The walking and cycling network should coincide with public transport routes, visitor parking areas, and connected to commercial activities that take place across Northumberland and provide opportunity for people to cycle or hire bikes to travel to work, this will be supported by a network of refreshment centres, toilets, supply and hire facilities. Circuits should also link with small scale retail outlets eg local, gift or farm shops, and accommodation to encourage longer stays with resulting economic benefits.
- Where appropriate, the provision of suitable amenities such as secure cycle lock-ups and horse pens should be provided to encourage people to rest and recuperate at strategic locations including gateways, activity hubs and refreshment points.
- 4.21 The overall network requires careful and sensitive planning; good clear information systems and signposting; and good management and maintenance. Opportunities to integrate GI into the road network should also be explored by existing and future transportation projects, with a key objective being to 'green' these routes wherever practical using the grey-green continuum concept as a guide.
- In accordance with the principles of developing 'Greenways'¹⁴ the walking, cycling and horse riding 4.22 routes should be regarded as individual networks that have their own pathway requirements. This is not

¹³ 13 Toll Rides Off-Road Trust (TROT) – a scheme that promotes and encourages access to farmland through a payment scheme to the landowners. TROT is a registered charity that is expanding its interests across the UK. There is no representation of TROT in the North East at present. ¹⁴ Natural England Greenways Handbook

to say that the pathways cannot be multi-use, but rather that where they are multi-use; the design is conducive to ensuring safe and enjoyable use by all; and that the overall route includes 'single use' sections to allow each user group to maximise the enjoyment of their experience.

- 4.23 The network should also include provision of trails and routes that can accommodate runners, other health and fitness users, and for assisted mobility users.
- 4.24 Delivering the network outlined above will be challenging, particularly in relation to obtaining rights of access. The planning and development process should be used as a means of securing new pathways and cycleways that connect with and expand the existing network. Environmental stewardship schemes, permissive rights and other schemes such as TROT can be used to encourage landowners to allow access routes to be created through their property. Discussion should also be encouraged in terms of using some of the existing wagonways routes within the leisure network, with Sustrans well placed to act as a partner organisation in terms of initiating discussions, design and management of this type of initiative.
- 4.25 Recommendations for Creating a Green Transport Network:
 - Ensure local/neighbourhood level green assets identified through PPG17 are accessible to local communities without significant barriers.
 - Establish coherent GI masterplans and action plans for the rivers and estuaries addressing the balance between recreational pressure from continual use as leisure routes between urban zones, the countryside and the coast and wildlife, biodiversity interest.
 - With the rivers providing an axis, establish a north-south, east-west grid framework that connects the different settlements to each other, the countryside, the coast and beyond into the wider Northumberland, Tyneside, Cumbria and the Scottish Borders.
 - Develop linear and circular routes to connect settlements with green assets on the urban fringe, linked in with the public transport network.
 - Ensure that all current, planned and future development (residential, commercial, industrial, and green) and transport infrastructure projects give clear consideration to providing new pathways and cycleways that connect with the wider GI leisure route network.
 - Encourage the use of Environmental Stewardship, Permissive Rights and other initiatives (e.g. TROT) to enable development of the green transport network, and draw upon the experience of other stakeholders in terms of delivery and future management.
 - At the sub regional level it will be important to ensure that the historic connection and existing transport routes is not lost; rather it is enhanced and preserved to ensure future movement for both people and wildlife.

Northumberland Water Environment

- 4.26 The river corridors, lakes and reservoirs are an important part of the County's Green and Blue Infrastructure whilst also serving as a means of managing flood risk through the provision of space to hold, store and allow water to disperse. The heavily wooded river valleys, the river flood plains and wetland areas also have the capacity to slow water flow down, dissipate water speed and slow down the rate of run off thereby reducing the potential for flooding down stream in the more developed and often dense residential areas.
- 4.27 Maintaining and improving the water quality of the county's rivers, streams, ponds and lakes will be a key objective in the implementation of this green infrastructure strategy. This will ensure that the water quality meets the European Union's Water Framework directive and that targets are set for future improvement. Rivers such as the River Coquet are registered as clean water resources.

- 4.28 The river corridors provide a key opportunity to link one area and one habitat with another they dissect the County. As such it is important to recognise that:
 - The rivers, lakes and reservoirs are finite resources that are easily altered in terms of quality and habitat potential.
 - To realise the contribution the County's water bodies make in creating opportunity for ecological diversity and wildlife movement.
 - There are significant gaps in the opportunity for the river corridors to serve as key recreational routes and wildlife habitat.
- 4.29 Securing the access and use of the river corridors lakes and reservoirs whilst retaining and improving its biodiversity importance will therefore be a difficult balance to achieve. The following recommendations are made in relation to the water environment:
 - Engaging with users at initial points of contact regarding the need to consider other users and the biodiversity value of the water environment.
 - Establishing a series of strategic dedicated visitor areas along the rivers to enhance and contribute to biodiversity and recreational opportunity.
 - Using recognised Zoning Management techniques to manage different users and reduce incidents of conflict; and reduce the impact of visitors to sensitive habitat such as the marshes, reed beds and mires.
 - Developing sensitive signposts that highlight places of high conservation interest along the river corridors, raising awareness of the importance for dogs to be kept on a leash, and potentially introducing diversion routes to avoid the most sensitive areas.
 - Enhance existing water environment habitat to benefit wildlife and protect rare and endangered species that occur especially in the more remote uplands and at the river mouth where they enter the coastal zone.
 - Support land management schemes which seek to provide opportunities to contribute to the management of flood risk and the role of sustainable urban drainage systems.

Northumberland Coastal Zone

- 4.30 To enhance the coastal zone to accommodate a range of different (and potentially conflicting) user groups, whilst retaining its importance for nature conservation. The coastal zone is one of the most valuable GI assets in terms of recreation and biodiversity, with the open stretches of beach area vital to the prosperity of both and as a strategic link into neighbouring authorities.
- 4.31 Traditional bathing activities are still popular along areas of the coast especially during periods of good weather and as such the appeal and accessibility needs to be retained and enhanced. Schemes are already underway such as the Blyth links improvement scheme, which has realised a range of environmental and amenity improvements to the coastal area of Blyth, have proved popular, and the introduction of the environmental art 'The Couple' forming part of the sea defence structure at Newbiggin has helped to raise this seaside town's profile once more. Similar schemes that will help retain or improve accessibility should be explored, particularly to influence use of the more attractive coastal areas.
- 4.32 The North East and the Northumberland Coastal Zone has seen a steady growth in water based sports such as surfing and more recently kite surfing, and kayak surfing. These activities have an increasingly popular appeal across the UK and have the ability to attract visitors to areas that would otherwise have

limited appeal. However, it should also be recognised that such activities can be a source of conflict with traditional bathers and families if not properly managed.

- 4.33 Similarly, traditional use of the beach can have implications for wildlife habitats, especially dogs being let off leads in areas of ground nesting birds, which can have long lasting and damaging effects. Much of the coastal zone has a Ramsar, SPA or LNR designation and thus is a linear corridor of considerable biodiversity value. These designations can, however, be a source of conflict with more traditional activities, unless both are properly managed.
- 4.34 Securing the access and use of the coastal zone whilst retaining and improving its biodiversity importance will therefore be a difficult balance to achieve. Initiatives that could be introduced to achieve this balance include:
 - Engaging with users at initial points of contact regarding the need to consider other users and the biodiversity value of the coastal zone.
 - Establishing a series of strategic dedicated visitor centre/cafés to promote and even crosssubsidise conservation with other forms of beach use (e.g. Using a 'visitor payback' philosophy associated with retail, catering and hire spend to contribute to local conservation schemes and practices).
 - Using recognised Coastal Zoning Management techniques to manage different users and reduce incidents of conflict; and reduce the impact of visitors to sensitive habitat such as the County's sand dune systems.
 - Developing sensitive signposts that highlight places of high conservation interest along the coastal zone, raising awareness of the importance for dogs being kept on a leash, and potentially introducing diversion routes to avoid the most sensitive areas.
 - Enhance existing coastal habitat to benefit wildlife and protect rare and endangered species that occur along the coast.
- 4.35 Achieving this balance would allow the coastal zone to flourish as a well utilised and highly valued natural resource amongst the local population that in turn will assist with making residential areas along the coast more attractive place to live and explore, as well as delivering economic benefits that will help with the regeneration objectives of the area as a whole.
- 4.36 Settlements across Northumberland, and especially the new growth points, need to be connected to the coastal zone to encourage greater access and enjoyment.
- 4.37 Recommendations for Ensuring the Coastal Zone Develops its Green Infrastructure Potential:
 - Ensure the value of the coastal zone as a principal GI resource is recognised through the planning system, with its biodiversity and wildlife value as well as its environmental character to be protected and enhanced through new development and vistas and immediate surroundings protected from any development that will lessen its GI value.
 - Explore opportunities available to encourage greater use of the coastal zone that are known to have market potential, especially family markets, adrenalin sports, broader water sports and wildlife watching; these uses must, however, be balanced against the need to protect the biodiversity value of the coast. Consideration needs to be given to how each group would use the zone, the seasonality of their use and the interaction with other user groups.
 - The potentially competing demands of different user groups need to be managed, with the use of clear activity zoning to be explored.

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- Opportunities for commercial functions should be explored, with the design and positioning
 of associated structures to be considered through the planning process.
- To extend the knowledge and management skills of the designated AONB into the wider coastal zone.

Green Infrastructure Hubs

- 4.38 To create a series of multifunctional green 'hubs' designed to accommodate a variety of different activities to act as a beacon for green spaces across Northumberland.
- 4.39 Although it is recognised that all assets that form GI will be important and that the quality of these sites should conform with national guidance (e.g. Green Flag, Blue Flag, Country Park Accreditation), as a network, GI should include a series of hubs to act as a beacon for encouraging access of green spaces. The hubs, or gateways, need to be readily identifiable features or facilities that have clearly defined public access functions in their own right. However, the purpose of these hubs will be to promote access to and use of the wider GI network.
- 4.40 The County already has a number of assets that have the potential to present hubs, principally the Hadrian's Wall World Heritage Site, the gateway towns associated with the Northumberland National Park, Registered Historic Parks and Gardens, and the Country Parks. In addition, there is also capacity to bring other hubs online in the future. This includes:
 - Several sites along the coastal zone, where people's access can be suitably managed without compromising conservation efforts.
 - The full stretch of rivers and estuaries as key landscape features that traverse the County ; and link the more remote settlements with the key market towns such as Haltwhistle, Hexham and Morpeth.
 - The reclaimed mineral works provide an excellent opportunity for greenspace, leisure and wildlife interests.
- 4.41 Consideration should be given to ensuring that each of these hubs are multifunctional in that they can be used as places of conservation, leisure access, and education. The country parks already have multifunctional provision, however the quality audit of these sites demonstrates that improvement is still required.
- 4.42 Each of these sites will also need to promote access to the wider network. In this respect, the sites need to disperse their visitors to other parts of the GI network using the green transport network.
- 4.43 Recommendations for Creating Green Infrastructure Hubs are set out below:
 - Identify a series of GI hubs and gateways; examine their current status as beacons of multifunctional green spaces by providing places of conservation, leisure access, and education; and develop comprehensive long term management plans that will enhance and improve sites.
 - Ensure that each hub surpasses the minimum quality standards identified for the type of open spaces using Green Flag, Blue Flag, Country Park Accreditation and others.
 - Integrate the hubs and gateways into the green transport network to encourage sustainable movement between the sites, with each site being clearly signposted and way marked throughout the green transport network.

Approach to Biodiversity within the Landscape

- 4.44 Through careful consultation and management, enact a living landscape approach to nature conservation across the County that will integrate conservation practices into living, working and leisure spaces.
- 4.45 A holistic, landscape-scale approach to biodiversity is a process that aims to create a series of seamless corridors that encourage the movement of important habitats and species throughout an area, irrespective of other land uses. The living landscape approach is concerned with not just developing discrete sites of biodiversity importance, although this is still important. Rather, it is more concerned with extending the reach and influences of these spaces so that, eventually, they will be joined into a network that promotes biodiversity development and conservation throughout the area.
- 4.46 Ultimately, this will require the integration of natural environment forms within the built landscape, be it residential, heavy industrial, office developments, retail, or agricultural to ensure that these conservation corridors become clearly defined.
- 4.47 It is important to recognise that biodiversity is the generic term used to describe all types of species and organisms within a defined area. In this context, the biodiversity objectives across the County will need to cater for a variety of different species especially those identified through the Northumberland Biodiversity Partnership Species Action Plans.
- 4.48 Careful consideration will need to be given as to how and where these corridors are planned, created and developed, and how they link to other protected green spaces across Northumberland.
- 4.49 The County has a series of sites of both international national and local importance in terms of nature conservation, NNRs, Ramsar designations, SPAs LNRs and SSSIs; however, they are often spatially isolated. The value of these sites in terms of nature conservation is easily overlooked by the general public, on the basis that these sites tend to appeal to more specialist interest, and lack public amenities. The sites often are very low key with limited or no onsite car parking, toilets and limited interpretation or access.
- 4.50 If the recommended biodiversity approach is to be achieved, it is recommended that one or more of the local sites, such as those managed by the Wildlife Trust, be developed to champion the benefits of wildlife conservation at the local level in a similar way that AONB designation serves to identify regionally and nationally important sites. Where possible, these hubs should be linked to the river corridors and former wagonways or disused railway routes in order to facilitate wider habitat growth and movement. These clearly defined corridors need to be protected and enhanced for biodiversity, including the establishment of buffer zones to help protect the most sensitive areas from damage from other forms of activity.
- 4.51 Conservation needs to be integrated into hard landscapes in urban and urban fringe locations. Organisations such as NWT, NE, and the FC who work closely with landowners, developers and communities to encourage the adoption of practices and measures to assist in its delivery will be integral partners in this regard. A key message should be that biodiversity need not be a constraint to other development aspirations, but rather by incorporating biodiversity such as woodlands, water bodies, and appropriate planting regimes, into development design at an early stage it can be used to raise the profile of the project and provide a more attractive proposition for future businesses and residents settling in the area.
- 4.52 To act as an example, the Great North Park development in Newcastle-Gateshead has heavily involved the Forestry Commission to a point whereby the organisation has entered into land management and funding arrangements for the creation of woodland/open spaces in zones identified for residential and business development. The arrangement is seeking to deliver benefits to welfare of both residents and the workforce, but is also now being seen as a pro-active response to climate change achieved through development because it is leading to the 'greening' of the built environment. Another model is being

worked through at Kielder, although given the contrasting nature of the two areas the two projects differ significantly.

- 4.53 It is also important to recognise the role of farming and agriculture in achieving a landscape approach to biodiversity. Again, the resulting benefits can often be mutual, for instance animal grazing is a natural means of managing landscapes, whilst certain inclusion of certain species can act as a natural control of pests that damage crops. Similarly, other managers of large bodies of space such as schools, church and grave yards, and playing pitches, need to be encouraged to develop management policies that include detailed consideration for biodiversity.
- 4.54 Appropriately designed development in biodiversity can also actively support other GI activities, especially leisure and tourism. Wildlife watching is a popular leisure pursuit in its own right, for example, which is proven to act as a motivator behind tourism visits. Integrating local wildlife discovery as a theme for leisure routes can be a useful means of encouraging people to walk, cycle, or horse ride around an area. Furthermore, tourism and leisure businesses are increasingly keen to be associated with 'green' practices. In this regard, use of one of the recognised green tourism schemes (e.g. Green Tourism Business Scheme, David Bellamy Awards, Green Globe) would create clearly defined ties between business and improving the environment, including measures for biodiversity.
- 4.55 Recommendations for the future approach to Nature Conservation and Biodiversity are set out below:
 - Ensure clear consideration is given to conserving existing biodiversity, having regard to the targets contained in the Northumberland Biodiversity Action Plan, in all development (e.g. residential, industrial, leisure) and delivering enhanced and new environments for biodiversity as determined through the Biodiversity Action Plan.
 - Identify, develop and promote a series of wildlife conservation sites that are specifically adapted to accommodate visitors (potentially including a visitor centre) that can act to educate people on the importance of nature conservation.
 - Encourage existing enterprises to adopt 'green' practices that are specifically designed to promote biodiversity, especially those with a direct relationship to GI (e.g. agriculture, woodland management, leisure, tourism).
 - Recognise and appropriately manage potential conflicts with other users of other wildlife conservation zones and corridors (e.g. dog walkers, leisure users, sports enthusiasts) to avoid inadvertent damage to habitat growth.

Green Infrastructure as an Economic Resource

- 4.56 It is important to recognise GI as an economic resource that can support existing activities and deliver new investment, various local employment opportunities, skills development, and entrepreneurial endeavour.
- 4.57 As identified in earlier, a primary purpose of the NGP designation is to stimulate economic regeneration, and GI has a key role in contributing to environmental and social improvements which are part of area regeneration.

New Opportunities Associated with GI

4.58 Although the role of GI is, through a network of rural and urban, multi-functional greenspaces (new and existing), to support the natural and ecological processes and therefore be integral to the health and quality of life of sustainable communities it is also important to recognise that GI will have an economic and regenerative value. A clear sub regional example is Seaton Delaval Hall, which, under the stewardship of The National Trust, will have a clear revenue generating function for the purposes of supporting the organisation's conservation activities.

- 4.59 This in turn will create directly and indirectly supported employment. Similarly, the other country parks have enterprises that rely on economic exchange, be it cafes or boat hire for example. GI presents an opportunity to facilitate growth in existing activities and the promotion of new ventures.
- 4.60 In terms of the future, clear commercial opportunities exist throughout the coastal zone. One of the potential growth markets is in relation to adrenalin activities such as surfing, kite sports and other water sports and through biodiversity. Whilst the availability of adrenalin sports in Devon and Cornwall is well recognised as having revitalised the visitor economy of these areas, few areas elsewhere in the UK have exploited its market potential. Such activities are growing in popularity along the North Sea coastal zone including Northumberland which means the potential is already evident. Opportunities include equipment hire, training/schooling, accommodation, and events, not to mention ancillary services such as retail and catering. Another area for economic activity for consideration is in relation to wildlife watching, which would also have clear economic markets and benefits. The value of wildlife watching as an activity is well recognised, with membership revenues and additional visitor spend used by organisations such as the RSPB and the Wildlife Trusts to support their conservation activities. Additional economic value is often generated through dedicated visitor centres offering catering, retail, and meeting space in addition to interpretation and educational services.
- 4.61 If these more commercial activities expand in a planned and co-ordinated way to protect and enhance wildlife, whilst simultaneously increasing participation, they will derive GI, health and social benefits for both residents and visitors to the area.
- 4.62 Despite having a coastal zone internationally recognised as being highly valuable to wildlife conservation, the RSPB has only one site in Northumberland in total and whilst the Northumberland Wildlife Trust has a greater number of sites, few along the coastal zone have dedicated visitor facilities. This may change in the future due to the recent purchase of Cresswell Foreshore, part of the Druridge Bay area, with the Druridge Bay initiative seeking to develop this theme further. In our view, the feasibility of a visitor centre associated with this important wildlife zone should be investigated.
- 4.63 Similarly, other GI activities across Northumberland will present economic opportunities in other forms and sectors. For instance:
 - Cycling and horse riding have a strong association with hire provision, whilst at the extreme end of the market, new mountain bike and BMX centres are being created from former mining sites (e.g. Lee Quarry, Rossendale; Magheramorne Quarry, Northern Ireland);
 - Equestrian leisure and tourism is very much regarded as a growth sector in the UK, with new businesses emerging from initiatives such as the National Bridleway Network;
 - The assets that make up GI have strong resonance with voluntary employment to either support visitor functions or deliver localised conservation projects, which in turn can lead to volun-tourism¹⁵ for example; and
 - The management and maintenance of GI will also indirectly involve traditional skills, the arts, and agriculture for example.
- 4.64 Furthermore, each of these elements can be fostered to have a greater collective economic function through joint marketing and promotion; strengthening local supply chains, especially local producers;

¹⁵ Volun-tourism - VolunTourism is a combination of the words volunteerism and tourism. VolunTourism integrates the best of travel and tourism – arts, culture, geography, heritage sites, the natural environment, and recreation – with the opportunity to serve and enhance the destination – its people, places, and things. Or to put it even more simply volun-tourism is a really great way to have a holiday and actively contribute to the destination you are visiting.

and delivering skills development that will support local jobs in the leisure and tourism sectors in the long term. At its best, therefore, GI has the capacity to support an array of enterprises Whilst it not the purpose of this report to determine the full commercial scope of individual activities, the economic worth of certain projects should be explored to assess prospects and identify potential projects for intervention.

Supporting of Economic Investment

- 4.65 Commercial and residential developments are critical to the delivery of the future growth across the County. The programme of planned development already recognises that development is to be balanced with creating an attractive place in which people live and work in. In this respect, GI is a mechanism for delivering a healthier work-life balance by providing workers living locally with options for leisure, sport, recreation and outdoor learning close to the home and the work-place.
- 4.66 This additional value of GI is becoming increasingly important, especially in areas such as South East Northumberland where the environmental character has suffered through previous industrial development. GI is a commitment to delivering environmental change and improvement, aspects which business leaders are increasingly interested in as part of the overall 'package' of facilities and amenities that the business environment of places offer. This is particularly true of business sectors requiring creative thinking, low noise levels, or involved in environmental technologies.
- 4.67 The latter sector is set to be increasingly important with the growth of the NaREC for renewable and wind powered energy industries. Therefore, GI development will need to go hand-in-hand to ensure that this industrial sector has literal as well as technical associations with the greening of the County.

GI Supporting Existing Activities

- 4.68 GI has the ability to act as a means of supporting existing business activities in Northumberland. Encouraging more people to undertake leisure locally and by attracting new visitors to the area will help to further underpin existing enterprises. In addition, landowners, particularly in relation to farming and woodland management, can be encouraged into better management practices for biodiversity and/or leisure access, which are both priorities of the agricultural and woodland Environmental Stewardship schemes for example. Farm diversification into tourism and leisure activities is also well recognised nationally as a means of strengthening the viability of farming in the face of increasing pressures.
- 4.69 Strengthening the supply chain that support businesses directly involved in GI should also be encouraged to ensure that more revenue is retained locally. For example, The National Trust actively supports local producers by selling produce in their stores and using this produce in café food.
- 4.70 It is anticipated that Seaton Delaval will follow a similar model, meaning that any spend of visitors not only supports the conservation efforts of The National Trust, but also feeds into the wider economy.

Potential Cost Savings

- 4.71 The study into the economic value of GI conducted in the North West also identified areas where GI can assist in reducing costs incurred at a local level by various sectors and government departments. These include:
 - Reducing atmospheric pollutants that lead to ill health, reducing pressures on NHS budgets, the cost of sickness and the cost of absenteeism by encouraging people to become more active and therefore improving people's physical wellbeing;
 - Providing more attractive environments for people to relax in and enjoy, to help stimulate their minds, their creativity and their personal outlook;

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- Engineering more green spaces such as woodland, water bodies, wetland habitats and grassland that allow better drainage, potentially preventing and alleviating the costs of mass flooding;
- Regulating temperatures locally to reduce the impacts of seasonal weather changes, such as using tree canopies to shade urban zones and reduce thermal heating from concrete structures and 'green' roofs and more woodland areas to act as a water absorption material.
- 4.72 Recommendations for deriving Economic Benefits from Green Infrastructure are set out below:
 - Reflect the potential of GI as a source of economic opportunity, supporting leisure, tourism and conservation enterprises in particular.
 - Use GI to further raise the profile of Northumberland as a place for businesses to invest in and relocate to on the basis the County will offer a great working and living environment; and one that is in keeping in terms of delivering 'greener' living.
 - Continue to examine and promote the benefits of Green Infrastructure in addressing the causes and effects of climate change.
 - Explore opportunities for investment in activities that have clearly defined market potential (e.g. walking, wildlife watching, horse riding, cycling, water sports, adrenalin activities, golf), especially utilising the coastal zone, the open moors, Kielder and the Northumberland National Park.
 - Encourage greater integration of enterprises that have an indirect association with GI by delivering enhanced local supply chains, especially associated with local producers.
 - Promote the cost saving that investment in GI can generate across for health and in combating the effects of climate change Northumberland (see below).

Green Infrastructure and Climate Change

- 4.73 Combating the causes and effects of climate change are critical to the delivery of sustainable solutions.
- 4.74 Increased pollution emissions, especially CO2, in the atmosphere are causing more severe weather occurrences such as flooding and prolonged periods of drought, whilst the overall warming of the atmosphere is raising the level of the sea. These are just some of the issues that are being faced at a local level.
- 4.75 GI can help alleviate both the causes and the effects of climate change through mitigation and adaptation, both of which will be evidenced:
 - Mitigation GI will help to reduce polluting emissions by:
 - Reducing car dependency for travel to and from key everyday places such as the workplace, retail areas, schools and friends and family;
 - Encouraging the use of local assets and facilities for leisure and recreation, removing the need to travel to other areas to access attractive, quality green and open spaces;
 - Encouraging local business to adopt more sustainable practices into the running of their business – using resource efficient technologies, sourcing goods locally, improving site biodiversity (where relevant);
 - Promoting the use and value of local goods; and

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- Promoting greater use of renewable energy sources, including wood from managed and cultivated woodland that also have a biodiversity and leisure function.
- Adaptation GI will help to adapt the local environment to:
 - > Create more CO2 absorbing materials, especially in terms of woodland creation;
 - Reduce the need for energy and water consumption through appropriate design of the landscape, for example by creating more water bodies, grassland and woodland areas that cool the air around residential and business districts;
 - Retain and improve the inherent properties of natural landscape in terms of providing defences against flooding and droughts, whilst also providing other day-to-day functions such as leisure and biodiversity; and
 - Introduce more sustainably designed buildings for tourism and leisure services that require less power to run, create less waste, and are more harmonious in style with the natural surroundings.
- 4.76 Recommendations for securing Climate Change Mitigation and Adaptation Measures through Green Infrastructure
 - Ensure all planning documents draw attention to the need for the climate change mitigation and adaptation measures that can be realised through green infrastructure.
 - Identify and enhance the roles of existing green infrastructure assets in the mitigation and adaptation of land in relation to climate change causes and effects.
 - Ensure that any new green infrastructure developments include climate change mitigation and/or adaptation measures into its overall design.

Community Prosperity

- 4.77 Use green infrastructure to create a greater community spirit, pride, wellbeing, vitality and prosperity.
- 4.78 Communities remain central to the premise of GI, whether it is improving the environment in which communities live; providing access to sites of importance nature and heritage conservation by local residents; or providing sustainable movement from places of residency to work, to school, to commercial centres, or to other open spaces for leisure.
- 4.79 However, these initiatives need to be supported by measures that will encourage the enjoyment of GI and the greater integration of communities across Northumberland. This includes:
 - Communities and the settlements should become more connected through GI. This should be achieved through a series of social, physical and environmental initiatives and activities that are designed to entice the community to engage with each other through GI.
 - Core settlements, especially the main market towns, need to be recognised as part of the GI network, accommodating strategic services and amenities, and encouraging economic exchange for the benefit of the wider County.
 - Local residents should be encourage to enjoy and access GI from their homes, with both existing and future landscapes adjacent to settlements to be designed to contain formal and informal green spaces such as woodland, lakes and open parkland for leisure, recreation and biodiversity.

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- The leisure and recreation network, transport infrastructure and service provision should visually knit the settlements with the wider countryside of Northumberland.
- Special outdoor events should be used as a means of bringing the communities of rural and urban settlements together, with the nature of the events to be focussed on outdoor recreation, sports, conservation and education.
- 4.80 Recommendations for Promoting the Use of Green Infrastructure by Local Communities:
 - Promote access to the green transport network, demonstrating the leisure assets and natural habitats that can be accessed through the network.
 - Encourage special outdoor events within GI assets that engage communities across the County particularly more vulnerable groups.

Towards Delivery

- 4.81 The way forward for GI in Northumberland is dependent upon a host of factors. The key one being that the strategy is owned and ratified by the strategic partners and stakeholders currently involved in the many aspects of GI improvement enhancement and strategic development. It is also essential to gain political support and endorsement of the green infrastructure vision as both may be the key to aligning much needed funding.
- 4.82 It is important to gain corporate and stakeholder 'buy in' to the strategy and in order to take this forward, there is a need to secure a shared understanding of the aims of the strategy and the benefits associated with its implementation. It is essential for everyone to understand what it means and why it is important to have a well connected, well placed network of good quality, multifunctional, accessible green infrastructure that serves a range of uses from biodiversity, to recreation, to creating a sense of place.
- 4.83 The delivery of this strategy is intended to run beyond 2026 and will be integral to the county's forward strategy especially in relation to the future management, design and maintenance of the County's rich environmental, cultural and archaeological resource and future long term planning policy.
- 4.84 A key challenge over the next decade will be the co-ordination and prioritisation of projects and funding to deliver a network of well-connected multi purpose green infrastructure across Northumberland.

Establishing a Partnership Approach

- 4.85 As Green Infrastructure is multi faceted and does not stop at administrative boundaries. It often has varying interests that may conflict with each other. As such it is important to achieve a balanced approach. The delivery of this strategy is therefore dependent upon a co-ordinated flexible approach that includes working across boundaries and strong partnership working.
- 4.86 It is suggested that this can be achieved by bringing people together to deliver and take ownership of this strategy and to drive forward the delivery of the vision
- 4.87 It is important to recognise that Northumberland already has an excellent track record in environmental stewardship and there is a wealth of knowledge, expertise and support for the delivery of good quality accessible green infrastructure assets. The skill will be in harnessing and sharing that broad range on knowledge expertise and available resources to the benefit of the wider environmental resource.
- 4.88 This strategy has been developed following a wide range of inputs from numerous organisations that have worked on reviewing and steering the strategy to this point. As a result the strategy identifies numerous regional and sub regional GI initiatives that are taking place or are planned to take place, which will make a contribution the enhancement of the GI network in Northumberland.

Delivery and Ownership

- 4.89 There is a need to develop a sub-regional steering group to oversee the future development of GI. This group needs to consist of County Council Officers (Planning, Ecology, Leisure, Parks, Climate Change, Rights of Way, Highways), Elected Members and a range of stakeholders that include National Governing Bodies, designated sites, environmental charity organisations and representatives from the tourism sector.
- 4.90 This forum could be established to oversee the delivery of GI initiatives and to ensure they are coordinated to maximise the benefits and opportunities.
- 4.91 The forum will be responsible for championing the benefits and principles of green infrastructure. They will steer the delivery of green infrastructure and be responsible for marketing and promoting the importance of green infrastructure to the widest audience.
- 4.92 It is suggested that the forum work to establish the necessary partnerships to fund manage and deliver specific initiatives and projects and advise on best practice.
- 4.93 The initiatives identified are not an exhaustive or prioritised list. They are a reflection of the range and scope of work that is underway. It is recommended that initiatives and projects will need to be subject to periodic review by the forum to gauge their success.
- 4.94 It is important to realise that the initiatives listed are not the only ones underway. Indeed there are many other more local initiatives that are underway at the more local level. These have not all been included as the scale of this strategy has in the main focussed on regional and sub regional opportunities. It is recommended that the more local initiatives are the focus of the emerging local development framework and need to be agreed at the Local Area Partnership. These can be collated and tie into wider sub regional and regional approaches to improving GI in Northumberland.
- 4.95 It is suggested that the function of working at the local level is split between members of the forum, with individuals either taking a specific Area Partnership or alternatively championing a specific part of Green Infrastructure such as landscape or tourism and then working closely with the Area Partnerships to facilitate delivery.
- 4.96 The day to day management of the sub regional GI resource has to be seen as a high priority, if the approach recommended in this strategy is to be successful. It is important to realise that a fundamental driver for green infrastructure is to recognise it as an asset in Northumberland. As such it will be important to raise awareness of the existing resource alongside the potential to enhance and expand the network to facilitate a countywide framework.

Funding

- 4.97 A challenge to the successful delivery of this strategy and to the creation of a Green Infrastructure network will be identifying the required revenue and capital funding.
- 4.98 It is not realistic nor is it expected that this cost will be achieved entirely through public sector funds. The investment required in the County's green infrastructure is going to involve a host of funding mechanisms that include both private and public sector investment and essentially developer contributions.
- 4.99 The introduction of the Community Levy (CIL) in 2008 should enhance the planning system's Section 106 payments. This gives broader scope to the range and collection of developer contributions that can be generated and put towards infrastructure, including green infrastructure. It may be that the Council develops a suitable tariff that can be applied on a countywide basis to guide and secure future developer contributions towards the enhancement and improvement of the county's green infrastructure.

- 4.100 Additionally there is also the opportunity, especially through partnership working to access potential public sector funding streams that are reliant upon a suitable match fund being available. These include European Funding, The National Lottery and voluntary grants or stewardship schemes.
- 4.101 The contribution of funding needs to be considered in more detail through the development of the future action plan. It is the final recommendation of this strategy that the partnership now works to adopt the strategy, prioritise the actions and develop an action plan that acts as the framework for delivery and funding of the strategic network of green infrastructure.

The Appendices



Appendix 1 - Benefits of Green Infrastructure



Appendix 1 Benefits of Greenspace

1.1 Greenspace, sport and recreational facilities are important to local people and contribute to wider social agendas of local pride, health, education and the environment. Good quality open space, sport and recreational facilities have an important contribution to make to the delivery of the Northumberland Sustainable Community Strategy.

Sense of Place and Civic Pride

- 1.2 Open space, sport and recreational facilities are important to community cohesion because they can facilitate bringing people together, by providing meeting venues and social spaces for events and activities. They are an essential part of urban heritage and the urban fabric that makes up an area, and have an integral role in providing balanced and sustainable communities.
- 1.3 Well managed, good quality open spaces improve the appearance of an area, not least because they attract tourists and visitors. An urban area with good quality open spaces and areas for wildlife creates a positive image and can be a factor that helps attract inward investment from the relocation of businesses. In turn this increases employment opportunities for local people and supports physical regeneration. At the local level they stimulate local pride and make people feel good about where they live.

Health

- 1.4 The health benefits of green infrastructure in terms of open space, sport and recreational facilities are well documented. Access to good quality, well maintained open space has significant impact on our physical health and mental well being. Open spaces of all kinds provide opportunities to enjoy the natural world and to get involved in a wide range of leisure activities; they encourage people to walk more, to participate in sport or to simply enjoy the green and natural environment. The more attractive and accessible the green space is, the more likely it is to be used by a wide range of people.
- 1.5 Physical activity is a major contributor to good health and can reduce coronary heart problems, diabetes, certain cancers and mental health problems. Trees and woodlands help reduce the effect of urban pollution and allotments provide opportunity for more sustainable organic lifestyles, as well as improved health from the regular exercise involved.

Education

1.6 Open space, sport and recreational facilities provide a valuable resource for education as outdoor classrooms, and also spaces for training in vocations such as nature conservation, horticulture, community work, landscaping, forestry and sports development. They also provide an important environment for children to learn, take part in physical activity and play through social interaction.

Environment

- 1.7 Open spaces are essential to supporting the species diversity of the County, providing habitat and access to a rich variety of flora and fauna in an increasingly urbanised society where urban expansion has meant that true countryside becomes increasingly distant from most people.
- 1.8 Open space has an increasingly important role to play in mitigating the effects of climate change. As urban areas get hotter the cooling effect of open space and the shade they provide will become increasingly valuable. Open spaces can act as flood storage and wildlife corridors that allow the migration of plants and animals from one area to another, thereby acting as important stepping stone links between urban and rural areas ensuring wildlife in both can connect.

Appendix 2 - Strategic and Planning Context



2.1 In developing the study it is important to consider and recognise national and local planning policy and guidance. The relevant provisions are summarised below:

National Policy

Planning Policy Statements / Guidance (PPS/PPG)

- 2.2 National guidance seeks to ensure Local Authorities plan effectively for open space, sport and recreation by using a number of tools, including:
 - Assessments of needs and opportunities Local Authorities are required to carry out open space assessments and to consult with local people to identify local needs;
 - Setting standards National standards such as the National Playing Fields Association (NPFA) standards for outdoor sport and children's play will be replaced by local standards set in development plans that must include quality, quantity and accessibility and are based on local needs;
 - Maintaining an adequate supply of open space and sports and recreational facilities:
 - Existing open space, sports and recreational buildings and land should not be built on unless the land can be shown as surplus to requirements (A key driver for PPG17 is not to dispose of sites, rather to ensure local people have access to a range of good quality provision)
 - High quality open spaces and those of particular value to communities should be protected through development plan policies;
 - Planning conditions or obligations can be used to enhance the quality of existing spaces or create new ones where an assessment recognises a deficit in provision of open spaces, sport or recreational facilities;
 - Local Authorities should also ensure that commercial and industrial developments do not just include landscaping, but also consider visitors' needs such as accessibility and safety and ensure the development has an element of open space provision;
 - Planning Obligation funding can also be used as investment in parks, open spaces and tourist areas to improve the quality and accessibility for local people;
 - That provision should be based on local need and the crux of the guidance is not to provide more of the same, rather improve and enhance what is already there.
- 2.3 When planning new open space and sports and recreational facilities, local authorities should:
 - Develop and locate intensive recreational uses where they can contribute to town centre vitality and viability;
 - Strive to avoid any significant loss of amenity to residents, neighbouring uses or biodiversity;
 - Aim to improve quality through good design;
 - Seek to promote accessibility by walking, cycling and public transport, and ensure that facilities are accessible for all;
 - Continue to add to and enhance the range and quality of existing facilities;
 - Seek to promote areas of open space in commercial and industrial areas;

- Consider using any surplus land for open space, sport or recreational use, weighing this against alternative uses;
- Assess the impact of new facilities on social inclusion and consider the recreational needs of visitors and tourists;
- Meet the regeneration needs of areas;
- Consider security and personal safety, especially for children.

Planning Policy Guidance Note 17 (PPG17: Planning for Open Space Sport and Recreation, 2002)

- 2.4 The Government's policy objectives for open space, sport and recreation are set out in Planning Policy Guidance Note 17 (PPG17 Planning for Open Space, Sport and Recreation, 2002). In terms of delivery the long term aims are to:
 - Ensure the provision of networks of accessible, high quality open spaces and sport and recreation facilities in both urban and rural areas, which meet residents and visitors needs, are economically and environmentally sustainable and are fit for purpose;
 - To ensure an appropriate balance between new provision and the enhancement of existing provision;
 - To provide clarity and reasonable certainty for developers and landowners in relation to the requirements and expectations of the local planning authority in respect of open space and recreational provision.
- 2.5 A key aspect of PPG17 is that local authorities should undertake a local needs assessment and audit of existing provision. The objective is to move away from the use of national standards of provision and to establish local standards of provision that address quality, quantity and accessibility.
- 2.6 The guidance advises (in paragraphs 1-10) Local Authorities to undertake and consider:
 - Undertake robust assessments of existing and future need to guide effective planning for open space, sport and recreation, therefore consultation is essential to ensure the needs of the local communities are known
 - As a minimum needs assessment should include the differing population and community needs for open space sport and recreational facilities
 - The needs of people living working and visiting should be taken into account
 - To undertake an assessment that identifies specific surpluses and deficiencies that can form the basis to guide the development of a more strategic framework and approach to management and future provision at a local level
 - Ensure that sport and recreation facilities are easily accessible by a choice of transport modes and wherever appropriate the facilities are centrally located
 - To consider factors such as cost and location as an accessibility factor
 - Quality audits will be important as they will allow the identification of potential for increased use through better design management and maintenance
 - The assessment will enable the Council to deliver more effective planning policy

- Provide good quality open space and recreational facilities as an integral part of new communities not as a bolt on to ensure they are attractive places for people to live and work
- To develop locally derived standards of provision which are evidence based
- Adopt a strategic approach and to plan in a progressive and positive manner for the provision and enhancement of well designed open space, recreational and sporting facilities
- To provide the strongest protection for open space that is or that has the potential to be of value to local people
- 2.7 PPG17 states that local authorities should utilise the information gathered from undertaking a needs and opportunities assessment and set locally derived standards of provision for open space, sport and recreation. In setting local standards they should include:
 - A quantitative assessment (i.e. how much have they got and how much do they need and where?);
 - A qualitative standard which can be used as a means of measuring what needs to be improved and assessing performance though the number of sites that have been improved;
 - An accessibility standard that considers how people travel, how long it takes and if travel time is acceptable. It should also consider other factors such as cost and barriers to use.
- 2.8 Setting such standards based on local needs will form the basis for redressing the surplus or deficiencies through the planning process. It will also allow standards to inform LDF documents and other Council strategies or plans.
- 2.9 The guidance advocates a cross departmental approach to undertaking the needs assessment and auditing. This approach links planning processes with the Community Strategy and Best Value process. Local planners, managers of parks and open space, outdoor sport and recreation are encouraged to work together in the delivery of the audit and assessment. External stakeholders and local people are also an integral part of the assessment.
- 2.10 The Guidance identifies a five step process for undertaking a local assessment
 - Step 1 Identify Local Need
 - Step 2 Audit Local Provision
 - Step 3 Determine Provision Standards
 - **Step 4** Apply Provision Standards
 - Step 5 Draft Local Policies
- 2.11 PPG17 maintains that open spaces, sport and recreation all underpin people's quality of life. Well designed and implemented planning policies for open space, sport and recreation are therefore fundamental to delivering broader Government objectives.
- 2.12 PPG17 stresses the importance of protecting and enhancing the Public Right of Way network for walkers, cyclists and horse riders. The guidance also stresses that parks, recreation grounds, playing fields and allotments must not be regarded as 'previously-developed land'.

- 2.13 PPG17 states that open space and sports and recreational facilities that are of high quality, or of particular value to a local community, should be recognised and given protection by local authorities through appropriate policies in plans. Areas of particular quality may include small areas of open space in urban areas that provide an important local amenity and offer recreational and play opportunities:
 - Areas of open space that provide a community resource and can be used for informal or formal events such as religious and cultural festivals, agricultural shows and travelling fairs. Travelling fairs may also require suitable winter quarters;
 - Areas of open space that particularly benefit wildlife and biodiversity.
- 2.14 The strategy will ensure the Council meets the requirements placed on the Council by PPG17 by setting local standards of provision for each different type of open space. The local standards will be derived from existing provision and consultation with key stakeholders (both internal and external), local people and interested groups.
- 2.15 PPG17 directs local authorities away from the use of traditional simple standards such as the National Playing Field Association (NPFA) 6-acre Standard. The standard has been used traditionally by planners as the generic standard to adopt, even though it was never intended to be a prop for planners it somehow became one. The 6-acre standard, whilst a worthwhile tool, did not set standards for every type of space such as parks or natural areas.
- 2.16 In addition, PPG17 has a number of wider objectives set out in its Companion Guide. These are:
 - Supporting an urban renaissance local networks of high quality and well managed and maintained open spaces, sports and recreational facilities help create urban environments that are attractive, clean and safe. Green spaces in urban areas perform vital functions as areas for nature conservation and biodiversity and by acting as 'green lungs' can assist in meeting objectives to improve air quality.
 - Supporting a rural renewal the countryside can provide opportunities for recreation and visitors can play an important role in the regeneration of the economies of rural areas. Open spaces within rural settlements and accessibility to local sports and recreational facilities contribute to the quality of life and well being of people who live in rural areas.
 - Promotion of social inclusion and community cohesion: well planned and maintained open spaces and good quality sports and recreational facilities can play a major part in improving people's sense of well being in the place they live. As a focal point for community activities, they can bring together members of deprived communities and provide opportunities for people for social interaction.
 - Health and well being open spaces, sports and recreational facilities have a vital role to play in promoting healthy living and preventing illness, and in the social development of children of all ages through play, sporting activities and interaction with others.
 - Promoting more sustainable development by ensuring that open space, sports and recreational facilities (particularly in urban areas) are easily accessible by walking and cycling and that more heavily used or intensive sports and recreational facilities are planned for locations well served by public transport.

(Source ODPM Assessing Needs and Opportunities –A Companion Guide to PPG17 2002)

Planning Policy Statement 1 (PPS1: Delivering Sustainable Development)

- 2.17 PPS1 has sustainable development as the core principle for planning policy nationally. Sustainable development delivery aims to
 - To provide high quality developments of mixed use and sustainable communities
 - Reduce the need to travel by car
 - Using land in an efficient manner including re-using sites that have previously been developed
- 2.18 In applying this to the Open Space Strategy it has important links in developing open spaces that are sustainable, valued by local communities and will support the Council in providing a balance of provision across the Borough and local areas through determining deficiencies or surpluses and potentially changing the management regimes on sites to meet the needs.

Planning Policy Statement 3 (PPS3: Housing)

- 2.19 This states that new residential environments should provide or enable good access to community space including green space, open amenity and recreational space (including play space) and that emphasis should be given to the needs of children and young people. The guidance advocates the need for well designed, safe and secure stimulating areas with safe pedestrian access.
- 2.20 Nationally the Government has encouraged local authorities to develop an open space strategy as part of the national drive to create cleaner, greener, safer sustainable communities.
- 2.21 Green spaces are important to the health and everyday well being of the people of the County. Therefore well designed and implemented planning policies are fundamental, and it is essential that the Council provides sufficient facilities of the right type in the right places and that these facilities are correctly resourced, well managed and maintained both now and in the future.
- 2.22 The study will help to meet the need for accessible good quality green spaces that meet local needs through the creation of networks of provision that are sustainable and valued by the communities they are designed to serve. It will ensure that the Council provides an appropriate balance and equal access to a network of good quality provision through enhancement, refurbishment or new provision where necessary. It will provide a clear framework for investment and management action.

Planning Policy Statement 5 (PPS5: Planning for the Historic Environment)

- 2.23 Planning Policy Statement 5 (PPS5: Planning for the Historic Environment) sets out the Government's planning policies on the conservation of the historic environment. PPS5 replaces the former PPG15 Planning and the Historic Environment and PPG 16 Archeaology and Planning). PPS 5 is supported by a Practice Guide, endorsed by Communities and local government, the DCMS and English heritage.
- 2.24 PPS 5 reflects the Government's aim of conserving the historic environment and its heritage so that this, and future generations can enjoy the quality of life they contribute.
- 2.25 The objectives in planning for the historic environment are:
 - to deliver sustainable development by ensuring that policies and decisions concerning the historic environment:
 - recognise that heritage assets are a non-renewable resource
 - take account of the wider social, cultural, economic and environmental benefits of heritage conservation; and

- recognise that intelligently managed change may sometimes be necessary if heritage assets are to be maintained for the long term.
- to conserve England's heritage assets in a manner appropriate to their significance by ensuring that:
 - decisions are based on the nature, extent and level of that significance, investigated to a
 degree proportionate to the importance of the heritage asset
 - wherever possible, heritage assets are put to an appropriate and viable use that is consistent with their conservation
 - the positive contribution of such heritage assets to local character and sense of place is recognised and valued; and
 - consideration of the historic environment is integrated into planning policies, promoting placeshaping.
- to contribute to our knowledge and understanding of our past by ensuring that opportunities are taken to capture evidence from the historic environment and to make this publicly available, particularly where a heritage asset is to be lost.

Planning Policy Statement 12 (PPS12: Local Spatial Planning)

- 2.26 PPS12 explains what local spatial planning is, and how it benefits communities. It also sets out what the key ingredients of local spatial plans are and the key government policies on how they should be prepared. It should be taken into account by local planning authorities in preparing development plan documents and other local development documents.
- 2.27 Each local authority is required to produce a Sustainable Community Strategy (SCS) following consultation with their local communities and key local partners through the Local Strategic Partnership. The Sustainable Community Strategy sets out the strategic vision for a place and is linked into overarching regional strategies. It provides the vehicle for considering and deciding how to address difficult cross-cutting issues such as the economic future of an area, social exclusion and climate change. Building these factors into the community's vision in an integrated way is at the heart of creating sustainable development at the local level.
- 2.28 A Local Area Agreement (LAA) is normally a three year agreement, based on the SCS vision, that sets out improvement targets for the priorities of a local area. The agreement is made between Central Government and local authorities and their partners on the Local Strategic Partnership.
- 2.29 Local authorities and their public sector partners are now under a duty to co-operate to agree LAA targets and to have regard to them in exercising their day-to-day functions. The LAA is a key delivery mechanism for the SCS.
- 2.30 PPS12 therefore offers, and requires, the development of a stronger leadership role for local authorities and elected members, built on collaboration through Local Strategic Partnerships and accountable delivery through LAAs. The government intends that spatial planning objectives for local areas, as set out in the Local Development Framework, should be aligned not only with national and regional plans, but also with the shared local priorities set out in Sustainable Community Strategies where these are consistent with national and regional policy. To achieve this, the Local Government White Paper strongly encourages local authorities to ensure that:
 - Their Sustainable Community Strategy takes full account of spatial, economic, social and environmental issues;
 - Key spatial planning objectives for the area as set out in the Local Development Framework Core Strategy are in harmony with SCS priorities; and

 The Local Area Agreement, as the delivery agreement with central government, is based on the priorities of the SCS and supported by local planning policy to deliver the outcomes agreed.

Planning Policy Statement 9 (PPS9: Biodiversity and Geological Conservation)

- 2.31 This guidance seeks to ensure that enhancement and conservation of biological and geological diversity are an integral part of sustainable development and that they contribute towards urban renewal and the wider urban renaissance.
- 2.32 Conservation and enhancement are seen as important in the guidance. The guidance refers to local importance, such as veteran trees and ancient woodland. It also advocates that conservation, enhancement and restoration of biodiversity and geology should be an intrinsic part of the strategic approach to development location and form.
- 2.33 The Council will need to ensure that future development plan documents will identify the location of sites designated as important for bio diversity and geological importance. The document will also need to recognise the need for the creation of new habitats in order to meet future targets.
- 2.34 PPS9 re-affirms the Government's position on the conservation of the natural environment. It outlines the need to protect sites that are both designated and undesignated and to manage wisely and promote the creation of new habitats. The guidance advocates the integration of measures to promote and protect nature across all aspects of the Council's work.
- 2.35 The standards set and subsequent policy guidance will be based on a comprehensive audit that considers quantity, quality and accessibility of the provision within the Borough. The standards and subsequent policy framework recommendations will be in keeping with national, regional and local plans and strategies and will support the emerging Local Development Framework.

Circular 05/2005 Planning Obligations

- 2.36 This Circular provides revised guidance for local authorities on the use of planning obligation funding such as section 106 agreements made under the provisions of the Town and Country Planning Act 1990. It clarifies the policy terms and outlines appropriate processes for securing planning obligations.
- 2.37 The Circular defines planning obligations as 'Private Agreements' negotiated by the local authority and private developers or people who wish to develop a piece of land. The purpose is to limit the impact of development or to allow development in circumstances that would otherwise be unacceptable from a planning perspective.
- 2.38 It means developers may have to commit to a recreational provision or contribute to improvement off site. This can be either a required new provision, a provision off site or a financial contribution.
- 2.39 Obligations (Financial) can be made to compensate for loss or damage caused by the development or to reduce the impact of a development. This again may comprise on or off site financial obligations.
- 2.40 A planning obligation may therefore be used to restrict development or require the land to be utilised in a specific way and require a payment to the local authority for loss or future maintenance (if it is new provision).
- 2.41 Circular 05/2005 stipulates a number of tests to ensure a planning obligation is an appropriate mechanism. It has to be:

1. Relevant to planning

2. Necessary to make proposed development acceptable in planning terms

3. Related directly to proposed development

4. Fairly and reasonably related in scale an type

5. Reasonable in all other respects

- 2.42 Tests 1 and 2 'relevant and necessary' requires justification for developer obligations to be established in national, regional or local planning policy.
- 2.43 The Circular and associated tests allow for improving both quantity and quality of open space and associated facilities. It also allows for the pooling of contributions towards strategic provision. This includes pooled provision with neighbouring authorities.
- 2.44 Developer contribution as a support for new facilities is allowed. For example, developer funding can be utilised as a contribution towards a facility planned by the Council.
- 2.45 The Circular also advises on maintenance payments for facilities that are primarily for the benefit of users and the associated development. Developers may be required to make payment in perpetuity for the subsequent maintenance of such provision.
- 2.46 The Government's objective in relation to planning policy and developer contributions is for local authorities to provide clear and specific justification within the local development framework that is based on clear and robust evidence, particularly local need.

Summary of Audit Commission Report (June 2006)

- 2.47 The Audit Commission reported on a study aimed at examining how local authorities in England were managing their approach to providing their public sports and recreation facilities and attempts to improve access and value for money.
- 2.48 Observations were made on strategic planning of sport and recreation services, operational management options and success of options appraisals.
- 2.49 It was recommended that Councils should improve the strategic planning of sports and recreation provision and increase overall efficiency by:
 - Assessing current and future sports and recreation needs
 - Forming partnerships to aid the planning, procurement and delivery of services
 - Appraise the options for delivery and test the market to ensure that the best value option is identified
 - Improve the collection, analysis and use of performance information.

Urban Greenspaces Task Force "Greenspaces, Better Places" (September 2006)

- 2.50 The report highlights principles and recommendations to support the renaissance of sustainable parks and green spaces and rekindle the relationship between people and the places in which they live.
- 2.51 It recognises that parks and open spaces have the potential to make a significant contribution to urban regeneration by making places more liveable and sustainable whilst also enriching the quality of people's lives.

National Agency Guidance

Sport England: Spatial Planning for Sport and Active Recreation : Sport and Recreation in Supplementary Planning Documents (2009)

- 2.52 Sport England's interests relate to the development of policy within Local Development Documents and the implementation of policy through development control. This guidance helps to clarify how the interests of sport and recreation are best represented at a local level.
- 2.53 Supplementary Planning Documents (SPDs) provide a means of amplifying policy presented in the parent Core Strategy and can therefore prove a useful tool in helping to clarify particular issues and promote the interests of sport and recreation. The specification of planning obligations is the commonest example of the consideration of sport and recreation issues (typically as community infrastructure), but there are other examples of the potential for taking a wider view on the contribution of sport and recreation issues in SPDs relate principally to guidance on developer contributions to the provision of community infrastructure. As such they are widely applicable, and sport and recreation issues are now typically considered as part of an authority's wider approach to planning obligations.

Planning for Open Space (2002)

- 2.54 The key messages advocated by Sport England in this publication are:
 - Policy on planning applications for the development of playing fields provides 5 exceptions to the opposition normally raised by Sport England to the loss of facilities
 - Any development affecting playing fields has to have been considered by Sport England as a key consultee.
 - Planning Inspectors will no longer accept the traditional 6 Acre standard approach in emerging development plans within local authorities and expect to see the development of local standards of provision.
 - Local authorities will need to consider the Towards a Level Playing Field Methodology (guidance on the production of playing pitch strategies) when undertaking open space assessments.

CABE Space

- 2.55 CABE Space is a part of The Commission for Architecture and the Built Environment (CABE), and was set up in early 2003. It has a primary role to champion excellence in the design and management of parks, streets and squares in towns and cities.
- 2.56 CABE Space receives its funding through central government and their work is to encourage a more holistic approach to open space. A primary objective for CABE Space is to ensure people have access to good quality, well designed, and well-managed public open spaces. They are raising the profile and importance of open space in the wider agenda of regeneration, health and well being of local communities.
- 2.57 The key document relevant to this strategy is the best practice guidance for developing Open Space Strategies (2009).

Open Space Strategies – Best Practice Guidance (2009)

- 2.58 The guidance has been developed to support the guiding messages in PPG17 and to contribute to the wider agenda of improving open space through a more strategic approach. The document outlines the importance of good strategic planning in relation to open space and the benefits it can bring.
- 2.59 The document demonstrates the importance of developing an open space strategy and the benefits it can bring. These include:
 - Reinforce local identity and civic pride
 - Enhance the physical character of an area, shaping existing and future development
 - Improve physical and social inclusion, including accessibility
 - Provide connected routes between places for wildlife, recreation, walking and cycling, and safer routes to schools
 - Protect and enhance biodiversity and ecological habitats
 - Provide green infrastructure and ecosystem services
 - Provide for children and young people's play and recreation
 - Raise property values and aid urban regeneration
 - Boost the economic potential of tourism, leisure and cultural activities
 - Provide cultural, social, recreational, sporting and community facilities
 - Protect and promote understanding of the historical, cultural and archaeological value of places
 - Contribute to the creation of healthy places, including quiet areas
 - Provide popular outdoor educational facilities
 - Promote the opportunities for local food production
 - Help mitigate and adapt to climate change
 - Improve opportunities to enjoy contact with the natural world
- 2.60 The guidance outlines 3 stages to developing an open space strategy:
 - Stage 1 Prepare includes the importance of robust consultation, reviewing core documents and policies from national to local level, development of local typologies and the use of digital mapping to establish quantity, quality and accessibility of open space. The gathering of evidence is crucial to providing a robust assessment and to enabling informed management decisions
 - **Stage 2 Deliver** pulling together the key themes and strands into a clear and concise framework, establishing standard of provision and preparing a final strategy
 - Stage 3 Monitor and Review providing key performance indicators, establishing responsibility for delivery and timescales for reviewing the action plan and strategy.

Is the Grass Greener? (2004)

- 2.61 Using international examples of both good and bad practice to demonstrate issues common in many local authorities that have been encountered abroad, the guide focuses on maintenance and management practices to provide challenging solutions to common issues, such as:
 - Poor maintenance
 - Hostile environments
 - Lack of a strategic coherent approach to the management of greenspace
 - Poor design
 - Lacking of facilities to engage users
- 2.62 CABE Space have produced a wealth of similar publications including 'A Manifesto for Better Public Spaces (2003) and 'The Value of Public Space (2004)', which promote and advise on the value and benefit that good quality well managed open space can provide. Key messages from all the documents include:
 - High quality public environment is a vital part of any regeneration strategy and can have a positive impact on the value of property
 - Good quality accessible open space is important to our mental well being and research shows that well maintained spaces can help reduce stress and encourage more people to become active
 - Open spaces that are well designed, well used and intrinsic to a community can reduce crime or the fear of crime, they benefit young people and encourage children to play freely outdoors experiencing the natural environment
 - Well designed and well maintained spaces can bring people together and foster social ties
 - Open space brings people closer to the natural environment, biodiversity and wildlife

The Green Flag Award - The National Standard for Parks and Open Spaces

- 2.63 This is a national award scheme for parks and open space in England, Wales and more recently Scotland. The Civic Trust manages the award on behalf of central government and is backed by Natural England, English Heritage, the Countryside Commission for Wales, the Heritage Lottery and other similar organisations.
- 2.64 The scheme encourages the provision of good quality parks and open spaces that are well managed and sustainable. The award encourages community involvement and stipulates that sites must have a management plan in order to be considered.
- 2.65 The award is increasingly raising expectations as to what public open spaces can offer and gives reassurance to people that the value they place on their local space is not misdirected.

Local Policy

Northumberland Sustainable Communities Strategy to 2021

2.66 The Northumberland Sustainable Communities Strategy (SCS) sets the strategic framework for delivering more sustainable and integrated communities. The main premise of the strategy is to

'release the strength' of Northumberland's communities for the benefit of the lives of all residents. The overriding vision is the ensure that, by 2021, all Northumberland residents will:

- Enjoy a good standard of living More Northumberland residents and employers will prosper and thrive economically. Many will have embraced lifelong learning as the foundation for building their self-esteem and confidence. They will be increasingly aspirational and have a more positive enterprising and "can do" attitude to realising their personal goals. They will have fewer barriers to work and have local access to a wider range of good, long-lasting job or business opportunities.
- Live safely and in comfort Most Northumberland residents will live in a decent home that is secure and warm. They will have greater housing choice at prices they can afford. Their homes will be set in surroundings that are increasingly welcoming and pleasant safer to walk around in, freer from litter and graffiti, and interspersed with well-designed, attractive buildings and green spaces.
- Lead healthier lifestyles More Northumberland residents will live independently, longer and be less likely to die from heart disease, cancer, suicide or accidents. They will have greater scope to make healthier choices by eating balanced diets, regularly playing sport or taking exercise, stopping smoking and drug-taking, drinking alcohol in moderation, and handling the day-to-day stresses of modern living.
- **Readily access the things they need** More Northumberland residents will feel included and informed. They will be better connected to jobs, learning opportunities and essential services through enhanced points of entry that are convenient, affordable and welcoming to all. They will know where to turn for advice and be confident that their enquiry will be handled promptly and effectively.
- **Take part in cultural activity** More Northumberland residents will have broader opportunities to enjoy their leisure time. They will be regularly gathering to enjoy acclaimed events or quality venues and be equally passionate about actively cherishing their heritage and trying new things. They will be welcoming and open to sharing the considerable cultural delights on offer with visitors.
- **Care about our environment** More Northumberland residents will recognise the increasing vulnerability of the natural assets they rely upon and most will be taking action to combat climate change. They will be striving to protect and enhance their unique habitats, landscapes and countryside, to minimising pollution and waste, using energy prudently, and buying more produce locally.
- **Get involved and bring about change** Northumberland residents will be more prepared to volunteer and constructively find ways to help themselves in realising an opportunity or tackling issues of concern. They will be capable of forming and articulating a collective view on things that matter to them and be prepared to challenge the "powers that be" with those views.
- 2.67 The strategy recognises that delivering the vision will require a multi-agency approach and the support of the members of the public, the private sector, and the voluntary sector. As such, aligning policies and activities, sharing and pooling intelligence, and strengthening dialogue with the community and other stakeholders are considered key 'divers' to successful delivery.

Northumberland Economic Strategy (2010-2015) Adopted July 2010

- 2.68 Considerable change in the composition of Northumberland's economy is set to continue in the future. According to the Northumberland Economic Strategy (NES), the last vestiges of a once substantial deep coal-mining industry have all but disappeared and the county's agricultural workforce has continued to downsize.
- 2.69 The result has been that Northumberland now has a broader-based economy than in the past with Knowledge Intensive Businesses (KIB's), tourism, leisure and retail off-setting the decline of the

county's more traditional activities. This change continues to bring both opportunities and challenges. On the one hand new activities providing opportunities for entrepreneurial endeavour. On the other, these new businesses have had a tendency to be low key (81% of businesses have less than 10 staff) and fragmented. This contrasts starkly with coalmining which traditionally, was a significant employer and had clearly defined locations for operation.

- 2.70 The fact that there is no predominant town or city within the county also means a strong relationship with Tyneside, especially in SEN which boarders Tyne and Wear. The NES highlights that 28% of the county's workforce commute to Tyne and Wear on a daily basis, but in return the green spaces of Northumberland provide attractive leisure spaces for those living in Tyneside and homes for some of the more affluent elements of the Tyneside workforce.
- 2.71 The purpose of the NES is to set the economic development priorities for the council and its partners. The overall aim of the strategy is:

'To secure opportunities for residents and businesses in a resilient economy'

2.72 Within this, the NES identifies four strategic themes of a low carbon economy, people, business and place, with key thematic priorities being to create a vibrant, skilled, inclusive, competitive, resilient, enterprising and connected economy.

NES and South East Northumberland

- 2.73 SEN and the NGP designation are identified as an important component of the NES in terms of delivery. SEN contains key employment, residential and economic regeneration development zones. For instance:
 - Blyth and the Blyth Estuary are identified for considerable opportunity in low carbon and renewable technologies
 - Ashington Town Centre regeneration
 - Blyth Town Centre renewal
- 2.74 Moreover, given the concentration of population in SEN, the social deprivation issues that are currently observed and the future housing/economic potential as identified, many of the key thematic priorities are highly pertinent to the overall context for the development in the NGP. In particular, improving the sense of place and identity of SEN as a place to live, work and invest in, and addressing unemployment levels are considered crucial if the overall NGP objectives are to be realised.

NES and Green Infrastructure

- 2.75 The NES recognises the need to improve sustainable transport in the County; this underpins the contribution to be made by GI, which can also improve the sense of place of SEN ie place shaping, especially in relation to maintaining and improving the county's GI asset base (nature-based assets) and those that make Northumberland culturally and environmentally distinctive. In terms of SEN, this revolves around the role of the market towns, including Berwick Masterplan, their townscapes and their heritage and the need to strengthen linkages between them.
- 2.76 It is also recognised through the NES that GI can be utilised as a means of strengthening economic connections and overall connectivity into the Tyne and Wear conurbation through the development of sustainable transport networks.

Northumberland Consolidated Planning Policy Framework (April 2009)

2.77 The County Council's 'Northumberland Consolidated Planning Policy Framework' includes the saved policies of the former District Local Plans, and the 3 Core Strategies for Alnwick, Blyth Valley and Tynedale. This document will inform the preparation of the new Northumberland LDF and will set out

the framework of strategies, policies and proposals against which planning applications will be assessed and determined. It will effectively be a blueprint for transformation of the County, helping to implement the aims and objectives from NCC's Core Strategy.

- 2.78 The Consolidated Planning Policy Framework for Northumberland was adopted by Northumberland County Council on 4 February 2009 and identifies the need to consider relevant policies and strategies adopted by the former County Council and District Councils e.g. former Core Strategies and Local Plans when considering planning applications and other development proposals. Consolidated Planning Policy Framework comprises two sections:-
 - Section A Schedule of Statutory Development Plan Documents
 - Section B Schedule of Planning Policy Documents which do not form part of the Development Plan

Section A - Schedule of Statutory Development Plan Documents

2.79 This schedule includes Policy S5 of the adopted Structure Plan, adopted Local Development Framework documents which form part of the Statutory Development Plan, and local plan policies 'saved' either through regulation or Direction by the Secretary of State. Together with the North East of England Regional Spatial Strategy (RSS) these documents comprise the statutory Development Plan for Northumberland.

Section B - Schedule of Planning Policy Documents which do not form part of the Development Plan

- 2.80 This schedule is itself comprised of two parts. The first is concerned with those local development documents which are part of the Local Development Framework but do not form part of the statutory Development Plan and includes a number of Supplementary Planning Documents (SPDs). The second part comprises various planning policy documents which have been prepared by the seven former local planning authorities and which are used to provide guidance and advice in considering and determining planning applications. The documents in Part 2 are not individually identified in the policy framework in the Council's Constitution but are referred to as the 'Schedule of Planning Policy Documents which do not form part of the Development Plan'. The documents contained in Part 2, were prepared by predecessor councils, and were also adopted by the Northumberland County Council on 4 February 2009.
- 2.81 As a precautionary note the Framework flags up that the documents contained within the Consolidated Planning Policy Framework need to be read in context. Where they were adopted some time ago, it is likely that material considerations, in particular the emergence of new national and regional policy- will be afforded considerable weight when determining planning applications. As a precautionary note the Framework flags up the fact that some policies were adopted some time ago, as a consequence of which it is likely that other material considerable weight when determining planning applications. In addition, the document makes it clear that there will be a need from time to time to rely on existing evidence-based documents to assist in the due consideration of assessing development proposals. These include:
 - Housing needs assessments
 - Retail capacity studies
 - Emerging evidence based studies
 - Open space and recreation assessments
 - Landscape character assessments

• Employment land reviews

• Wind capacity studies

- 2.82 As a precautionary note the schedule flags up the fact that some policies were adopted some time ago, as a consequence of which it is likely that other material considerations in particular the emergence of new national and regional policy will be afforded considerable weight when determining planning applications. In addition, the Appendix documentation makes it clear that there will be a need from time to time to rely on existing evidence-based documents to assist in the due consideration of assessing development proposals.
- 2.83 The schedules also include a bibliography of the policy documents, including date of approval by the preparing authorities and an indication of their relevance by geographical coverage and spatial theme coverage.
- 2.84 Considerations to be taken into account in relation to "Spatial Theme Definitions" include.
 - For 'Recreation & Open Space' these may include parks and gardens, provision of new open space, sport and recreational facilities, children's play, strategic open spaces, golf courses, countryside activities, recreational footpaths, cycleways and bridleways.
 - For 'Natural Environment', these may include sites of international and national importance for nature conservation, sites of local or regional nature conservation significance, protection of species, biodiversity and geo-diversity sites, wildlife networks, landscape character, areas of high landscape value, best and most versatile agricultural, trees and hedgerows.
- 2.85 The Consolidated Planning Policy Framework for Northumberland is a 'living' document and the Council has signalled its intention to update the Framework when new planning policy documents are adopted.

Key Planning Issue in Relation to GI	How it is Currently Dealt With	Impact of this Situation
Standards of Provision	Standards of provision are based on the former district approach, which varies across the county.	Standards of provision are inconsistent across the new unitary area, as a result of the previous approached under former authorities. The new Northumberland PPS and PPG17 will be used to inform the setting of standards relevant to the new unitary area. These will replace the existing ones developed by former authorities.
Quality of Provision	The requirement for quality of provision of greenspace varies between all former districts. The basis on which quality of provision	There is no consistent measure of quality across Northumberland in terms of open space. This needs to be addressed in future planning

2.86 In relation to GI there are a number of key issues resulting from the above context, and specifically the existing planning policies being applied. These are summarised below:

Key Planning Issue in Relation to GI	How it is Currently Dealt With	Impact of this Situation
	is determined also varies, as each former district undertook its own PPG17 at different times, and methodologies also varied.	policy so that all providers have a quality level to which hey need to aspire.
Accessibility	There is inconsistency in relation to accessibility of greenspace.	Different areas of Northumberland currently have varying levels of accessibility; the critical issue is that GI should be developed to improve and address accessibility issues, and develop extended green networks.
Biodiversity	This aspect of GI was addressed differently in the former districts.	The Northumberland Biodiversity Plan is critical in informing future provision of GI, developing and protecting wildlife habitats.
Connectivity	There was no consistent approach to connectivity in former districts' planning policies.	The development of the GI Strategy provides the strategic framework for the development and implementation of connectivity across the county, to improve access, link existing and new settlements, the urban and rural areas, and maximise the benefits of greenspace for quality of life, health, and economic regeneration.

Northumberland Local Investment Plan

- 2.87 The Northumberland Local Investment Plan sets out a high level, strategic vision around which the Homes and Communities Agency (HCA) will invest resources in partnership with NCC. The vision for the Investment Plan is simply to '..release the strength of our communities' by making the most of the unique offer of Northumberland as a place to live, work and visit. The overarching objectives of the plan are as follows:
 - Diversification across economic sectors maximising opportunities for regeneration and growth particularly relating to the **Energy and the Environment including low carbon and renewable energy developments**.
 - Developing **tourism and the creative and cultural sectors** further utilising our natural assets and heritage.
 - Develop the strength of **enterprising communities**, **businesses and people**.
 - Promoting economic prosperity and raising employment and skills levels.
 - In the commuter belt and **more rural areas** tackle **housing affordability** issues for local communities through taking forward relevant recommendations in the Matthew Taylor report on the Living, Working Countryside.

- To promote Northumberland's **high quality of life and distinctive environment** that provides the ideal location to attract and retain high skilled workers in the region.
- Considering the **future for the Council's own stock** and **improving private sector accommodation**, particularly in North Northumberland.
- Addressing the needs of an **ageing population** through support to them in their own homes as well as new provision including extra care, private and social accommodation and working with the HCA to consider the findings of the Housing our Ageing Population: Panel for Innovation report.
- Understanding and responding to the needs of our **vulnerable people** including those experiencing or at risk of being homeless, people with learning disabilities and/or mental health issues, and Gypsy, Roma and Traveller communities.
- Reducing Carbon Emissions and reducing Fuel Poverty.
- 2.88 The plan determines that SEN, as one of the principal character areas of Northumberland, presents some of the greatest challenges and opportunities in Northumberland. Its challenges are caused by the fact that it is the most populated area of the county, and also because its key centres of Ashington and Blyth in particular have suffered major industrial decline that have led to high levels of deprivation. However, the opportunities afforded by its NGP status means that the regeneration of places such as Blyth, Cramlington and Ashington will realise considerable investment in housing, business and other forms of commercial property.
- 2.89 The importance of this plan from a GI perspective is in terms of deliverability and that it identifies the resource input requirements from the private, local and government agencies to include cash investments, land assets, and infrastructure development.
- 2.90 The plan recognises that the ability to secure developments in infrastructure and community-need projects will be more difficult to achieve through private sector investment in housing and commercial development in lower value locations such as Blyth, Ashington and Cramlington where requirements for affordable housing are likely to be higher.
- 2.91 Therefore, development vehicles such as housing alliances and cross subsidy schemes are seen as being important as they bring all key partners together and can ensure the integration of broader 'place making' priorities in the planning, design and development of projects.

Northumberland Biodiversity Action Plan

- 2.92 The Northumberland Biodiversity Action Plan (BAP) 'Working with Wildlife' has been developed through the Northumberland Biodiversity Partnership.
- 2.93 The partnership includes a variety of landowners, policy makers and stakeholders such as the former Borough Councils, Northumberland Wildlife Trust, County Landowners and Business Association, Northumberland Water, RSPB, Environment Agency, Forest Enterprise, Northumberland National Park, and Natural England.
- 2.94 The Northumberland BAP identifies and prioritises the species and habitats most in need of protection and enhancement and that are integral to the uniqueness or local character of Northumberland. These are identified in the table below:

Habitats	Blanket Bog	Lowland Heathland	Rivers and Streams
	Brownfield Land	Lowland Meadows & Pastures	Rocky Shore, Reefs & Islands

	Calaminarian Grassland	Maritime Cliff and Slope	Saline Lagoons
	Coastal Heathland	Native Woodland	Saltmarsh and Mudflat
	Fen, Marsh and Swamp	Ponds, Lakes and Reservoirs	Sand Dunes
	Gardens and Allotments	Recreational & Amenity Space	Upland Hay Meadow
	Heather Moorland	Reedbed	Whin Grassland
	Barn Owl	Freshwater Fish	Red Squirrel
Species	Bats	Freshwater Pearl Mussel	River Jelly Lichen
	Coastal Birds	Garden Birds	Upland Waders
	Common Seal	Great Crested Newt	Violet Crystalwort
	Dingy Skipper	Grey Seal	Water Rock-bristle
	Dormouse	Hedgehog	Water Vole
	Farmland Birds	Otter	White-Clawed Crayfish

- 2.95 The diversity of habitat and landscape across Northumberland helps shape the sense of place and character of the County as a whole. The County boasts a wealth of statutory and non statutory designated areas and networks of sites and habitats that serve as key ecological assets, with SEN for example consisting of Ramsar, Special Protection Area, SSSI, and local nature reserve designations.
- 2.96 The sphere of influence over the natural environment in Northumberland is wide and diverse with numerous agencies, governing bodies, private enterprise and the voluntary sector all having an input. As such the level and extent of management, availability of resources including investment, staffing and maintenance are also diverse and varied. This has a direct impact on the quality and consistency of the natural resource and would appear to lead to fragmentation, isolation and an inconsistent approach. GI can be used as a means of engaging all of these stakeholders and forging a more consistent and holistic approach to biodiversity protection and enhancement across Northumberland, and especially SEN.

Northumberland Rights of Way Improvement Plan, 2007

2.97 The Northumberland Rights of Way Improvement Plan sets the framework from which the County Council is to seek improvement to the existing network of public rights of way and the standards that are to be reached. Although GI is much broader in scope, the Rights of Way (RoW) network is integral

in term of being a delivery mechanism for encouraging sustainable access to the green and open spaces, providing the green linkages between them, and between settlements.

- 2.98 The Improvement Plan includes four key objectives in respect of the four types of right of way, footpaths; bridleways; restricted byways (a right of passage for all non motorists); and byways open to all traffic. These objectives are:
 - Ensure that the network of public rights of way meet current and future needs, is accurately recorded, and is in a condition which enables legal use.
 - Identify and implement improvements which will enhance the provision of recreational, health and transport requirements of residents and visitors using the Northumberland rights of way.
 - Enhance the range, type and accessibility of information available about Northumberland rights of way.
 - Work in partnership with interest groups to manage, enhance and promote the rights of way network.
- 2.99 A key priority for NCC is to improve the quality of the RoW network, especially in relation to bridleways; to develop access to the network for all, with greater emphasis on promoted walks and rides; and developing further regionally and nationally important trails.

The Northumberland Sports Facilities Strategy, 2010 (Northumberland Sport)

- 2.100 Northumberland Sport is one of 49 County Sports Partnerships in England, bringing together a range of organisations with a common aim of ensuring the people of Northumberland can access and enjoy quality sporting and physical activity opportunities. The partnership is directly linked to the Northumberland Strategic Partnership via the Culture and Tourism Board and the Health and Well Being Thematic Partnership and is recognised as the lead partnership for sport and physical activity within the County.
- 2.101 The vision for Northumberland Sport is to **develop and increase participation in sport, building healthy and successful communities.** In order to fulfil this vision, it is important that communities have access to a range of sports and physical activities through sufficient levels of quality facilities.
- 2.102 The strategy sets out an approach taken by Northumberland Sport to establish a longer term perspective and plan for sports facilities. The Northumberland Sport Partnership has a fundamental purpose of helping to create more opportunities and the right environments for more people of all ages to play sport and/or lead active lifestyles. The quality and range of sports facilities in the county is critical to driving up participation and the strategy aims to ensure facility provision is planned, developed and sustained in a coordinated and cohesive way.
- 2.103 The strategy has demonstrated that there are no significant gaps in the basic infrastructure of major facilities in the County. Swimming pools and sports centres, for example, are located where you would expect them to be in the larger towns with few overlapping catchment areas. There is theoretical unmet demand because of the distance some people live from pools and centres, but there is no concentration of unmet demand in any one area of the County.
- 2.104 Northumberland is relatively well off for some facilities such as golf courses and fitness centres. There are shortages of smaller scale facilities such as pitches, especially synthetic turf pitches, and accessible indoor spaces in some areas some of which can be addressed by bringing public owned assets more effectively into community use.
- 2.105 There is scope to work towards some specialist facilities particularly in relation to outdoor sport, building on Northumberland's great strength of high quality landscape. Whilst there can be long distances to travel to specialist indoor facilities in some cases, this is an inevitable consequence of

Northumberland's large size and sparse population, and more talented athletes will normally need to travel to the Tyneside conurbation to access the levels of coaching and competition they need. Nevertheless opportunities should be taken if there are housing developments or replacement schools, or if Sports Governing Bodies wish to invest in the County, to broaden and develop the range of facilities available.

- 2.106 The nature of Northumberland means that the greatest benefit to the greatest number of people will come through a broad range of improvements, adaptations and replacements commensurate with the scale and size of the County's communities.
- 2.107 Leading on from the results of the study, the key strategic objectives are:
 - To maintain the current stock of facilities to a high standard, continuing to maintain a stock of public sports facilities which serves the majority of the County's population, and seeking opportunities to refurbish them to keep quality high and to refresh and adjust the facilities on offer to meet changing demand.
 - To seek to replace facilities when they reach the end of their useful life; taking the opportunity to provide updated facilities to meet current and future demands and considering the most appropriate location for replacement facilities bearing in mind changes in population and demographics.
 - To work with partners such as schools, colleges and community organisations to maximise the community use of local assets, particularly those in public ownership such as schools, making small scale improvements and adjustments where appropriate.
 - To work with Governing Bodies to develop specialist facilities particularly relating to outdoor sport. To work towards setting a hierarchy of standards for provision commensurate with local needs, for example standards for the provision of synthetic surface pitches being considered through the playing pitch strategy.
- 2.108 The strategy recognises there is considerable financial pressure and uncertainty across public sector services and this poses a huge challenge for capital investment in new or improvements to existing sports facilities. Nonetheless the strategy aims to guide investment and a collaborative approach to facility development for years to come.

Appendix 3 - Current Green Infrastructure Initiatives



The following Table 1 sets out current Green infrastructure initiatives:

Table 1: Current Green Infrastructure Initiatives

Sustainable Places- Developing sustainable places and enhancing the quality of life are a key priority for the Council and its many partners. As such Master plans are in place for the regeneration of priority areas including Ashington, Blyth and Berwick Town Centres this will include £2.9 m worth of funding into Tourism and Heritage based Green Infrastructure based regeneration that includes Kielder, Hadrian's Wall and other sites.

Druridge Bay - partnership aiming to use a landscape approach to establish the coast south of the river Coquet to Snab Head as an AONB and to manage the coast through proactive coast management. The HLF project involves developing a series of connected wetland and farmland habitats to encourage wildlife, heritage and tourism in and around South East Northumberland. It is concerned with resolving longstanding issues and gaining maximum benefit for wildlife, habitat and people. The initiative places Druridge Bay as a key hub site that links the South East and the proposed growth areas to the coast.

Agri-environment (AE) Schemes, There are a number of schemes: Countryside Stewardship Schemes (CSS), Environmentally Sensitive Areas (ESA), Entry Level Scheme (ELS), Higher Level Schemes; these provide funding for more sustainable agricultural production. Some options take land out of production (e.g. grass margins, plots with wild bird seed mixtures); there are payments for better hedge management and hedge planting. There are also payments for creating permissive access and special projects (e.g. historic building restoration).

There are currently 3,169 AE Schemes in the north east of England; the majority of these are Environmental Stewardship Schemes. 81% of the Unitary Authority Area is under AE Schemes.

HLS Schemes are also in in place in Northumberland. Including along the River Rede, the North Tyne, and its tributaries.

Community Woodland Grant Scheme – examples of these schemes in Northumberland include Ashington Community Woodlandand the Rupert's Wood Project.

The EWGS is targeted at native ancient woodland; there is 7.500 ha of ancient seminatural woodland in Northumberland, of which around 61% is in a declining state; EWGS provides funding to assist in the management of these ancient woodland areas, such as supporting landowners to undertake woodland planning along the Pennine fringe of Northumberland.

Alnwick Garden Green Infrastructure initiative is very much in the development stage and a number of projects are proposed, including a circular branded/promoted walk around Alnwick; more free access around Alnwick Castle and garden; enhanced by an HLS agreement with e.g. permissive access.

Kielder Water and Forest Park(KWFP)- KWFP Partners are looking to invest £55-60 million over the next 25 years transforming KWFP and its immediate environs to realise its potential as a key tourism destination

KWFP will be known as:

- One of the UK's top water-activity resorts
- A major UK forest activity zone
- The UK's leading night-sky interpretation centre

• A model for 'car-free' transportation over a large-scale visitor area

By 2019, these locations will offer the following attractions and facilities:

The Gateway - The Gateway will grow out of the current Tower Knowe visitor complex and receive 80% of the footfall, offering enhanced visitor reception, catering and retail facilities. The Gateway will encourage visitors to leave their cars, offering easy transport links to the rest of the site, by ferry, water taxi, shuttle, land train or bicycle.

Leaplish - Leaplish will be receiving as many as 600,000 visits a year by 2019 – close to 6,000 people on a peak day. The Leaplish complex will provide:

- A very wide choice of water-based activities for visitors of all ages and skill levels
- Accommodation suitable for the more 'cosmopolitan' segments of the market, whether self-catering or serviced
- Suitable restaurant, retail and leisure facilities, both for couples and visitors with families, on a designed site that allows these different markets to mix.
- A hotel/spa complex of international standard will be sited in KWFP, and Leaplish is a possible location

The Calvert Trust - New facilities will be built in the area between the current Calvert Trust buildings and the lake, to include accommodation and water-based activities suitable for young people. There will be easy access and close link to activities at Leaplish.

A list of projects for Calvert Trust has already been identified in a study by Nevin Associates (2008) and this list will now be reviewed in the light of the wider proposals contained in this Investment Plan.

Kielder - In the vicinity of Kielder Village, the Forestry Commission will create one of the top forest activity centres in the UK.

It will group and centralise all attractions and events in the forest, and cater for:

- Those looking to discover and understand the natural environment
- Active families, looking for interest and adventure
- The sporting clientele

Forest activities will include Forest Discovery, catering mainly to older visitors or young families and Forest Adventure, appealing to young adults or families with older children. The environs of Kielder Village will receive around 400,000 visits annually by 2019, most of them to the Forest Centre.

The North Shore - With the development of lake transport (ferry and water taxi), the north shore of Kielder Water will become easily accessible. By 2019, there will be a visitor reception zone in the vicinity of the Belvedere, catering to 50,000 people a year, with seasonal facilities.

The High Fells - Away from the lake and above the forest, the High Fells area will offer a rich 'night sky' experience, with the existing Observatory and Sky Space and a future Planetarium. This will be the centre for all night-sky interpretation and activities, and host events in most periods of the year. In addition, KWFP will exploit the height of the fells to

create a unique, all-season downhill sports and activity area.

Hadrian's Wall Corridor – one of the Northumberland Wildlife Trust's Living landscape projects, the Hadrian's wall and Whin Sill corridor equates to around 90km sq of land within two 2km wide corridors in north and south west Northumberland, each of which is at least 20km in length. The aim is to develop the unique grassland and wildflower communities found along Hadrian's Wall and the rock outcrops of Whin Sill, to promote awareness of the natural heritage of these iconic sites.

Living Landscapes –A Wildlife Trust Initiative -A Living Landscape is one of the most ambitious conservation plans in UK history. The Wildlife Trusts are working to transform the environment we live in, restoring, recreating and reconnecting wildlife-rich spaces in rural and urban areas by working in partnership with local communities.

The Wildlife Trust want wildlife to thrive, to disperse and re-colonise the landscape so future generations can encounter, experience and enjoy the natural heritage Living Landscapes –A Wildlife Trust Initiative -A Living Landscape is one of the most ambitious conservation plans in UK history. The Wildlife Trusts are working to transform the environment we live in, restoring, recreating and reconnecting wildlife-rich spaces in rural and urban areas by working in partnership with local communities.

The Wildlife Trust want wildlife to thrive, to disperse and re-colonise the landscape so future generations can encounter, experience and enjoy the natural heritage.

Wildlife needs room to move, especially in the face of climate change The nature reserves the Wildlife Trust manage like so many others are unique and special havens, alive with plants, birds, mammals and insects. It is often the case that the wider landscape surrounding these sites is often inhospitable to wildlife. Intensive farmland, towns and cities, busy roads and railways, all make it difficult for wildlife to move between safe havens. As a conservation organisation, we have had to think differently about how to protect wildlife in this modern landscape.

Through Living Landscape Schemes, the Wildlife Trusts are joining the dots, making the whole landscape more wildlife-friendly. Linking isolated reserves allows wildlife to move freely, to trickle out through the landscape.

The specific areas to be nurtured and connected in Northumberland are Kielder Forest and Border Mires, The Hadrian's Wall and Win Sill corridors, Prestwick Carr and Druridge Bay.

Living Waterways – in partnership with Environment Agency –The Living Waterways project aims to develop sustainable solutions to reduce flood risk in urban areas. This will integrate improvements to wildlife habitats and increase recreational use of urban waterways, and will contribute towards Biodiversity Action Plan targets.

The project involves local people in the management of their waterways and associated green spaces. There are volunteering opportunities, including practical conservation work, habitat enhancement/creation, stream clean ups, assisting educational sessions, leaflet distribution and administration.

Northumberland Biodiversity Action Plan - Partnership Delivering a host of projects to enhance and protect habitat and species across the region.

Northumberland Native Woodland Initiative

The aim of the project was to assess the extent and condition of ancient woodland in Northumberland, based on the Ancient Woodland Inventory (AWI) and to use this to: provide advice and guidance to the owners and managers of the individual ancient woodlands; produce data that can be used as a benchmark and to help develop and target resources to bring about an improvement in the condition of the County's ancient woodlands.

Seaton Delaval Hall, National Trust, Seaton Delaval Hall is a recently acquired estate to the National Trust, which has the potential to act as an important stepping stone between Tyneside and South East Northumberland. The project hopes to enhance the chargeable area (8ha) of Seaton DelavalHall and the wider estate (>100 ha), the proposed work is to create additional access routes for local residents, stepping stone to Holywell SSSI (managed by NWT), and N Tyneside. The; programme to improve visitor experience, including guided walks; volunteer training days; creation of a shared joint environment-cultural volunteers task force (NT & NWT); possibly enhanced by a HLS agreement for the agricultural land of the estate

Friends of Carlisle park facility upgrade. Multi award winning Carlisle Park is an extremely valuable county community asset located in Morpeth attracting local, regional and national visitors. It is the only park in Northumberland to boast two scheduled ancient monuments, Ha' Hill and Morpeth Castle, and the renowned William Turner Garden celebrating the Father of English Botany who was born in Morpeth, as well as all of the usual features you would expect of a well loved park. The facility upgrades, led by the Friends of Carlisle Park and Neighbourhood Services' northern area team would improve many aspects of the park including community buildings, horticultural, heritage and ecological interest, hard and soft landscaping, natural play and interpretation. (park covers 13 ha)

SEN Public Transport Corridor

The SEN Public Transport Corridor is a scheme focussed on improving public transport services and infrastructure along the inter-urban A189 "corridor of opportunity" between SEN and the Tyne & Wear City Region.

The priorities under this initiative include developing a system that supports the energy sector development plans for Blyth; improves residential and commercial linkages across the area; supports the new Northumberland College site; and improves sustainable travel to work patterns of the City Region.

A key project that is to be delivered under this programme is the proposed development of modern passenger services using the existing freight line linking Tyneside with Blyth and Ashington. The project will also establish new stations serving existing urban communities and help open up mixed-use development sites. It will also be integrated with local bus networks, the Metro and park & ride facilities. Through ticketing, passenger information and high profile branding are also envisaged in order to ensure patronage.

Morpeth Northern Bypass

The Morpeth Northern Bypass represents the final section of the link between SEN and the A1, and is considered a vital project to unlocking the full benefits of the previous investment in the Ashington Northern Relief Road and Pegswood Bypass schemes which are now complete.

This long-standing proposal will be targeted to significantly alleviate congestion in Morpeth town centre, providing relief to the 19th century Telford Bridge and improving journey reliability, particularly for public transport.

It will also help to enable development of the North Morpeth / St George's Hospital that will create housing and employment opportunities.

Blyth Central Link Road

Accessibility to Blyth and Blyth Estuary has been identified as a key issue that needs to be addressed if the economic development of Blyth is to be realised for the benefit of SEN and Northumberland as a whole.

As a coastal town situated on a river estuary, the main access corridor is the Cowpen Road, which is the main link west to the A189 spine road and suffers from considerable congestion at peak times.

A project identified in the NGP submission document, the Blyth Central Link Road, is undergoing feasibility assessment to determine a suitable project plan. If successful, the project will be designed to reduce delays to traffic between Blyth and the A189 spine road, and support the proposals for the development of Blyth, especially commercial and residential.

Berwick Parks Project. Castle Vale Park (also known as the Lilly Ponds Park) and Coronation Park sit on either side of Berwick Train Station in the fine setting of the Tweed Estuary and as such form a significant advertisement for the town. The opportunity to rejuvenate and restore them has arisen through the Heritage Lottery Fund's parks for people initiative (in the region of around £1million which requires 25% match funding that could be provided through Section 106 contributions).

Neighbourhood Services' northern area team are working on this fantastic opportunity to take forward this community led project and realise many community aspirations while building on the sense of place and linking to the other Berwick focussed projects.

Carbon Sequestration through Tree Planting- The County Council owns a considerable estate and is seeking to work in partnership to continue to plant more trees on council land to help with carbon reduction. The Council aims to plant at least one tree for every person living in the County.

Wildflower Meadows- The Council is looking at the opportunity to move away from close mown grass to the creation of wildflower meadows on council owned land as a means to help stabilise declining bee populations

Blyth Physical Regeneration – Ridley Park and the links- these areas fall outside the proposed town centre regeneration and are concerned with providing high quality public realm environments to maximise the economic benefits of having excellent public realm. At the entrances or gateways to Blyth. The links has benefited from a new amenity and lifeguard building which is at the forefront of sustainable design with a living seeded green roof and solar powered external showers with 20 new beach chalets contributing to the recreational and tourism interest.

Blyth Green Travel Project:

The Government has made available Growth Fund to help facilitate development through the South East Northumberland Growth Point. The County Council's Executive has agreed at its meeting in July 2009 that this Fund be directed at Green Infrastructure Projects; Transport and Highway projects and Housing Delivery and Sustainability Innovation Projects.

In 2009/10 a grant of £150,000 was approved to support the development of the Blyth Green Travel Project, which forms part of the wider Connect 2 Project being developed by the County Council and Sustrans in South East Northumberland. In 2010/11 a further grant of £300,000 is to be made to the Blyth Green Travel Project. It has been confirmed at Ministerial level that the Growth Fund will be maintained at previously agreed levels (but has yet to be received by the County Council).

The supported project seeks to improve the accessibility of greenspace (Blyth Estuary; Ridley Park; and Blyth Links) and the green infrastructure network to existing and future residents of Blyth, including those in deprived communities. It will deliver safe cycle and pedestrian access to Blyth town centre from existing and planned new communities in the Blyth Estuary area of Blyth.

Its benefits are enhanced if delivered as a complete scheme from South Beach to the A189 Spine Road; this will allow for the diversion and rerouting of the existing NCN 1 to a water's edge route rather than the present convoluted route through residential areas of Blyth. The Blyth Green Travel Project will provide approximately 7.5 km of new or improved cycleway between South Beach and Kitty Brewster.

Its benefits are similarly enhanced when delivered alongside the complementary Sustrans Links to School project and Active Travel Town proposal to encourage behavioural change and shift to more sustainable transport modes.

In the course of detailed design some minor amendments have been made to the scheme. This is largely related to diverting the cycle route around operational Port of Blyth land at Wimbourne Quay. Similarly a small element of the scheme cannot currently be delivered because of a future housing development. In such circumstances alternative routes will be provided on an interim basis to maintain the integrity of the network and the provision of a complete link between South Beach and Kitty Brewster.

Northern Area Play Area refurbishments. NCC owned and Neighbourhood Services North managed play area refurbishment to replace outdated play equipment and other associated landscape features including, but not exclusively, safety surfacing, seating and fencing, to improve the facilities for communities, especially children and young people, across the northern area.

Northern Area changing room refurbishments. NCC owned and Neighbourhood Services North managed changing rooms' refurbishments to improve the facilities available for communities across the northern area.

Northern Area green space, flower and shrub bed improvements. NCC owned and Neighbourhood Services North managed green space, flower and shrub bed improvements to increase the sustainability of our planting schemes and respond to community aspirations for design and inclusion through aspects such as seating, accessibility and hard and soft landscaping.

Bothal to Whorral Bank Riverside Walk. This project represents the "last piece of the jigsaw" for the Castle Woods and Water project relating to developing access to open green space and recreational opportunities in the river corridor (River Wansbeck) around Morpeth. It can provide a direct link to open countryside and the river corridor from the St. George's Hospital / North Morpeth Growth Area.

The project relates to improvements to an existing footpath; it includes proposals to make existing lengths of footpath safer and more usable; realigning lengths of footpath;

improving steps and bridges to ensure that it is useable at all times of the year; improving access and interpretation of heritage features.

Such improvements are relatively costly due to difficulties in accessing the site which is largely in a steeply sided river valley. The scheme will be complemented by new signs and interpretation boards.

Prestwick Carr – Management of SSSI/Local Site on landscape scale to improve habitat and provide resilience in form of flood storage north of Ponteland and on the border with neighbouring Tyneside. The aim is to reinstate a wetter habitat environment and slow down the through flow of water in the river Pont.

SENSE Project – This project, led by The Northumberland Wildlife Trust, and supported by NCC and HJ Banks has been designed to enable people from local communities in Blyth valley and south east Northumberland to understand, appreciate, and act to conserve and enhance their local environment, using the key local sites of Choppington Park, Isabella Heap, Gallagher Park, Alexandra Park, Prestwick Carr and Valley Park.

Growing Wild –An exciting project to turn bland unattractive amenity greenspace sites into vibrant and healthy wildflower meadow. It also includes wildflower sowing on the former landfill sites of the south east area. Initially undertaken as a trial and now with additional approval and funding to extend the range and number of sites.

New Road landscape Berwick. Improvements to the New Road, including accessibility, surfacing, interpretation of historical and ecological significance and links to the town.

Public Realm study project Berwick "Tweed and Silk" – this study sets out a distinctive approach to conserving the design of the historic main streets and formal spaces of the town, and proposes a more innovative and individual direction for the hidden and often over-looked spaces in Berwick.

Ashington Community Woodland (NCC & NE funded)

The project aims to establish and support a; healthy walking group, A2N funding via Natural England for a woodland community engagement officer. The project will also involve the creation of a "green finger" into Ashington to reduce physical and psychological barriers to woodland being used more widely; this is part of the wider "projects around Ashington) and phase 2 will see a connection to Queen Elizabeth II park. This is a major rejuvenation of what was the largest reclamation scheme in the North East.

Tranwell reservoirs – Great Crested Newt work and infrastructure development for planned nature reserve.

Amble Paddling pool area EN bid. To improve and restore the paddling pools at Amble Foreshore.

Red Row welfare storage upgrade. Improvement to the sports equipment storage area including the installation of lighting and utilities.

Local Sites – Northumberland County Council has entered into a service level agreement

with Northumberland Wildlife Trust, to fund 3 days per week of a Conservation Officer's time to work on Local Wildlife and Geological Sites (until recently known as Sites of Nature Conservation Importance or SNCIs). Land ownership details for all existing sites are being verified and updated, and the sites are being surveyed and assessed against updated criteria to establish whether they should remain as Local Sites or be deleted from the system. Land managers will be given advice concerning the management required to conserve and enhance the interest features of their sites, and the funding opportunities available for this such as agri-environment and woodland grant schemes. Sites which are likely to meet the revised criteria will be assessed and designated where appropriate. The SLA is for three years at present, but there is a need to secure funding to enable this work to continue on an ongoing basis.

South East Northumberland Green Infrastructure Partnership Programme

The Partnership are making a financial contribution to deliver a programme of Green Infrastructure projects in the Ashington, Cramlington and Ellington / Lynemouth Areas.

13 projects within the Programme with an overall cost of £1,232k for which £300k of Growth Fund is sought against 10 of the projects.

The South East Northumberland Green Infrastructure Partnership is led by Groundwork North East in Northumberland together with Newcastle University (Landscape Research Group), Northumberland Biodiversity Partnership, Northumberland County Council (Countryside and Regeneration Services) and Northumberland Wildlife Trust).

The project aims to increase the availability and diversity of high quality multifunctional infrastructure in South East Northumberland; linking Growth Point "Growth Areas" to the wider Green Infrastructure network in and around Ashington, Cramlington, Ellington and Lynemouth, though a series of projects and interventions which all look at improving and enhancing discreet areas and types of GI across the project area.

Groundwork South East Northumberland Green Infrastructure Package (Ashington area).

Wansbeck Footpath 21 (NZ 262 872) - project aims to provide an enhanced green corridor between the corridor of the River Wansbeck to the south and the enhanced Ashington Community Woodland to the north.

Wansbeck Bridleway 12 (NZ 287 876) - project aims to provide an enhanced green corridor facilitating multi use access between the Hirst area of Ashington and the Woodhorn Colliery/QE2/Ashington Community Woodlands complex of sites to the north of East Ashington. It also links the hospital site to Alexandra Road through the creation of a multi use local access route.

Castle Island Community park (NZ 429 585) - project aims to improve existing open space to create a community recreation and play resource primarily for the community of North Seaton Colliery - the project will also provide an improved setting for the village.

Ellington Pond (NZ 427 777) the project will provide enhanced facilities for access to green space and recreation in Ellington and provide opportunities for residents to engage with the natural environment and wildlife through the provision of a dipping board and bird hide.

Play Areas in Berwick, Spittal and Pegswood. Improvements to the play areas in these areas, potentially linking to other funding sources.

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