# Cumbria Green Infrastructure Investment Strategy

March 2014

Economy Environment Society

Produced by Shirley Muir Associates

On behalf of the

**Cumbria Local Nature Partnership**

**Green Infrastructure Thematic Group**

# Why A Green Infrastructure Investment Strategy?

**Green Infrastructure is relevant to you because it involves every organisation that has in interest in Cumbria's economy, environment and people. It provides wide-ranging benefits from inward investment to health and well-being. But it requires a co-ordinated approach from those organisations in order to realise its potential.**

A Green Infrastructure Thematic Group was set up by the Cumbria Local Nature Partnership to prepare this strategy and to oversee its implementation. This document is intended to show how you can apply Green Infrastructure principles in your work; and it highlights current and potential schemes. Its companion document, the Literature Review and Evidence Base, sets out the background to the development of Green Infrastructure concepts and their incorporation into planning and sustainable development.

The purpose of this strategy is to direct future investment in the county. It identifies current and potential Green Infrastructure projects and as such is a dynamic document that will be continually reviewed and updated by the Green Infrastructure Thematic Group. The remit of the group is explained at the end of the document and contributors to this report are listed at Appendix 1.

# What Is Green Infrastructure?

**Green Infrastructure is a network of green spaces, water and other environmental features, urban and rural, which is multi-functional and capable of delivering a wide range of social, economic and environmental benefits.**

It includes all types of green spaces from moorland to private gardens; playing fields to churchyards. It is often defined in an urban context, but in Cumbria we are well-placed to look at Green Infrastructure across the whole county – urban and rural. The management of Cumbria's rural environment is crucial to its economy and its attraction as a visitor destination. Moreover, problems in urban areas, such as flooding, cannot be solved solely by measures in towns – schemes need to be considered on a water catchment basis. What goes on in the fells does not stay in the fells!

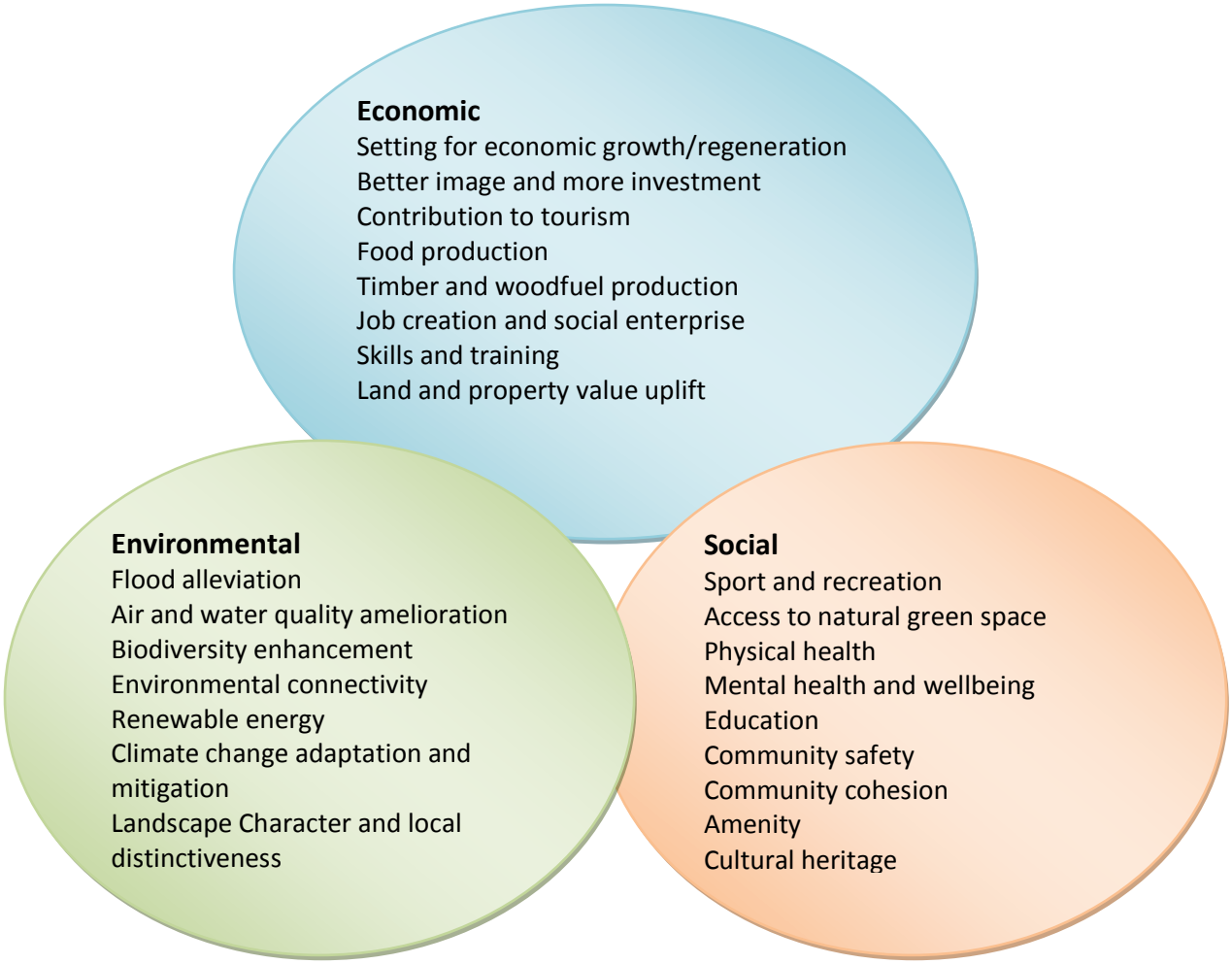
# Good For Growth

**The clever thing about Green Infrastructure is that it is multi-functional and it delivers a wide range of benefits. A study called *Green Infrastructure's contribution to economic growth* carried out for Defra and Natural England in 2013 concluded that it contributes to local economic growth in terms of:**

- Inward investment
- Visitor spending
- Environmental cost-saving, such as pollution filtration and flood risk reduction
- Health improvement, both physical and mental
- Market sales
- Employment generation

# Green Infrastructure Functions and Benefits

The functions and benefits of Green Infrastructure have been identified under the headings of economic, environmental and social.




### Ecosystem services

The benefits have also been described as arising from services provided by the environment:

- ***Provisioning services*** including food, fibre, fresh water and wood fuel;
- ***Regulating services*** including regulation of water/flood, climate, erosion, air and water quality and carbon sequestration;
- ***Supporting services*** such as soil formation, photosynthesis and nutrient and water cycling; and
- ***Cultural services*** including recreational activities and related health benefits, aesthetic values, and sense of place.

# Case Study – Rusland Horizons

**Rusland Horizons** is a Landscape Partnership project which is currently under development for a Heritage Lottery Stage 2 application. The landscape of the Rusland Valley and Fells is dominated by woodland and the project centres around the restoration of coppice management to ensure that the woodland is sustainable and in good condition, but it goes beyond simple physical improvements to deliver a range of Green Infrastructure benefits.

The coppicing programme will protect the landscape and restore wildlife habitats for birds and butterflies.

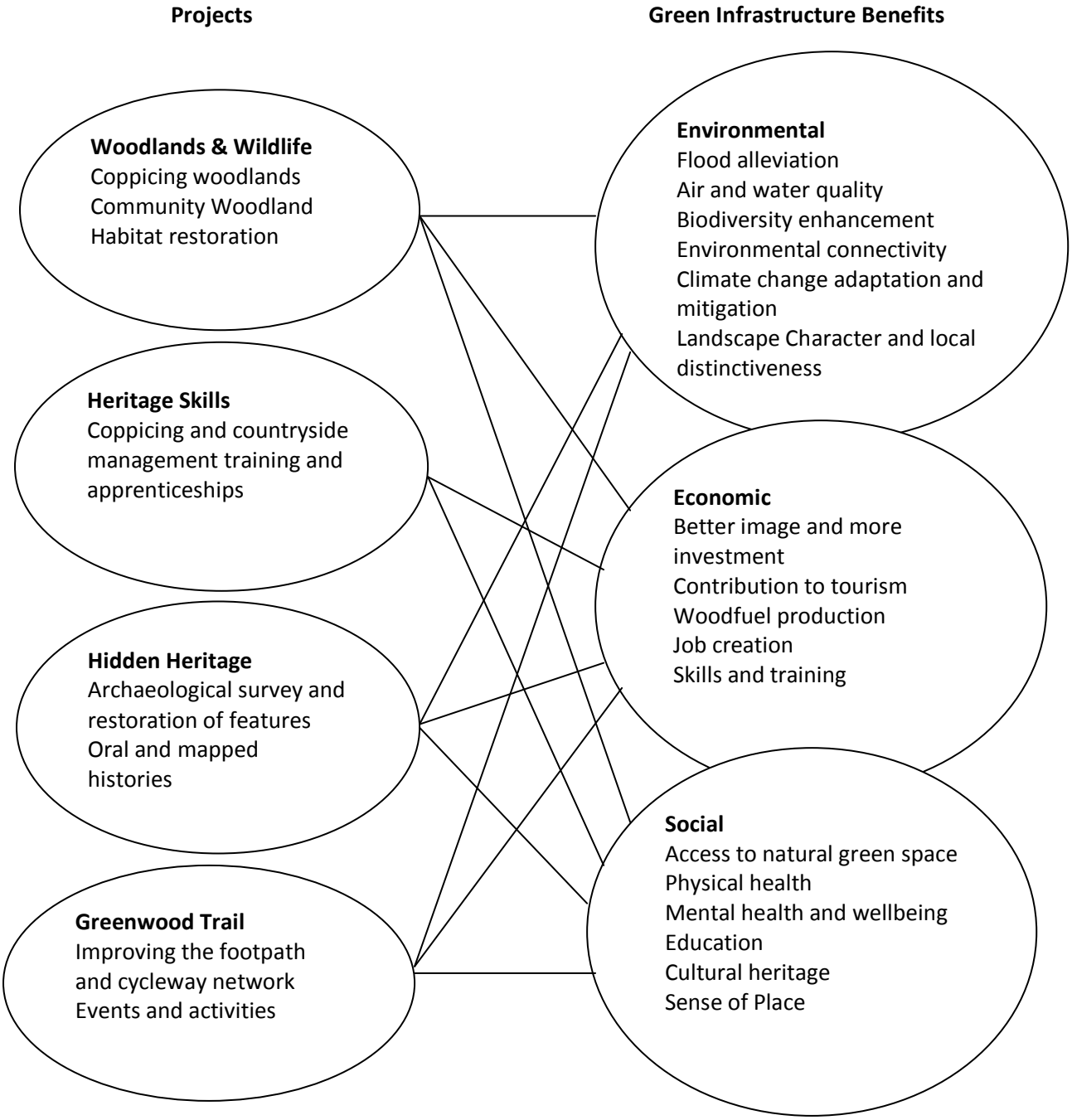
It includes associated training programmes and apprenticeship schemes in woodland management, creating jobs and reviving traditional skills and interest in woodland produce.

Archaeological features will be surveyed and restored and training provided in techniques. Local people and visitors can learn about traditional skills and the history of the area.

Access along footpaths and cycleways will be improved. More information will be provided about the area's landscape and history, contributing to local tourism and a sense of place.

The programme consists of a series of projects under four themes, which all deliver a range of Green Infrastructure benefits:

- Woodlands & Wildlife
- Heritage Skills
- Hidden Heritage
- Greenwood Trail



## The Challenge

**The multi-functionality of Green Infrastructure means that it is relevant for many organisations but it also presents us with a challenge. We need to work together if we are to deliver of the full range of its functions and benefits. We need to identify opportunities and involve relevant stakeholders at the design stage.**

For example, there may be a number of new development schemes in an area that each includes the provision of green space. But there may not be the co-ordination or the level of investment required to realise the links between them and add to the range of benefits.

A regeneration scheme may need additional expert input in the design stage in order to incorporate Green Infrastructure (rather than it being an add-on) and to achieve multi-functionality.

Changes in land management at a scale that can mitigate flooding downstream may require a significant review of policy and funding, such as changes to how farmers are paid for environmental management.

Nor is it just about providing physical space. The provision of open spaces and links for outdoor recreation will result in more physical and mental health benefits only if there is an information campaign or other incentives to motivate people to use them. This type of approach requires co-ordinated input into both design and budgeting.

## How Can We Deliver Green Infrastructure?

There are two types of action to deliver Green Infrastructure through:

- Planning and regeneration – the Local Development Plan can prescribe new Green Infrastructure associated with new build development; and regeneration and infrastructure schemes can include the creation or restoration of Green Infrastructure
- Land management – improving management of rural and urban open lands so they fulfil more Green Infrastructure functions and collectively contribute to a sustainable landscape

The following sections show some key examples of Green Infrastructure projects under each of the two types of action – 'planning and regeneration' and 'land management'. They demonstrate potential projects and partnerships, where investment can achieve significant results and demonstrate best practice for the future. The list is dynamic and will be kept under review by the Green Infrastructure Thematic Group. The Group is crucial in bringing together projects and partners to achieve multi-functional Green Infrastructure benefits.

The final section of the document is the remit of the Green Infrastructure Thematic Group and the next steps.

# Planning and Regeneration

There are opportunities to incorporate Green Infrastructure throughout the process of planning and implementing new development and regeneration schemes. The Local Development Plan can establish Green Infrastructure principles and details are added for specific sites through Supplementary Planning Documents. Funding for Green Infrastructure can be allocated through Community Infrastructure Levy and Section 106 schemes associated with development.

- **Local Plans**

The Local Development Plan is a key tool for delivering Green Infrastructure within, or associated with, new development and redevelopment schemes.

All seven district planning authorities in Cumbria have a Local Plan or Local Development Framework in place. The National Planning Policy Framework (2012) states that, "Local planning authorities should set out a strategic approach in their Local Plans, planning positively for the creation, protection, enhancement and management of networks of biodiversity and green infrastructure."

Four of the current Local Plans include detailed policies for Green Infrastructure. Three of the older plans (Eden, Barrow and Lake District National Park) do not include policies that relate directly to Green Infrastructure, but it is implicit in a number of policies including nature conservation, green wedges, open space and recreation. Eden District Council and Barrow-in-Furness Borough Council are currently preparing new Local Plans.

A case study showing the Allerdale Local Plan Green Infrastructure policy is on the next page. The Green Infrastructure Literature Review and Evidence Base, the companion report to this document, sets out the details of how each local authority in Cumbria has addressed Green Infrastructure in its Local Plan. A case study of proposed development from Carlisle City Council Local Plan is also given at the end of this section.

- **Land Allocations**

Land Allocations documents are part of the Local Development Plan and identify or 'allocate' land for specific types of development such as housing and employment. There is an opportunity to develop a county-wide document on Green Infrastructure expectations or requirements for new developments.

- **Supplementary Planning Documents and Development Briefs**

Supplementary Planning Documents (SPDs) expand on or add details to Local Plan policies for large or complex sites. They can be in the form of design guides, area development briefs, master plans or issue-based documents. South Lakeland District Council (SLDC), for example, lists sites for which development briefs will be adopted between 2014 and 2016. The Development Briefs will set out requirements for each site, including Green Infrastructure.

Copeland Borough Council has produced an SPD for West Whitehaven, and specifically for part of the Marchon chemical works site that is potentially earmarked for public open space. There is likely to be development pressure on this site in the meantime, and the opportunity for quality open space may be lost. The whole SPD area also contains the Colourful Coast and is a positive amenity space.

## Case Study – Allerdale Green Infrastructure Policy

The Council will promote the creation, enhancement, maintenance and protection of a range of green infrastructure assets that contribute to a diverse network of natural and man-made green and blue spaces, links, habitats and landscapes, which is accessible to all. The Council will work with partners and developers to:

• Promote high quality, attractive places which allow everyone to enjoy direct and regular contact with the natural environment;

• Seek to ensure green infrastructure is woven into new development wherever possible;

• Protect, manage, enhance and create key natural and semi-natural habitats and wildlife corridors, including watercourses, wetlands, woodlands (including ancient woodland and trees) and parklands;

• Seek to alleviate open space deficiencies in existing communities whilst ensuring all new open space provision is high quality, attractive and safe;

• Promote design and management of parks and natural green spaces to increase biodiversity and maximise their function as nature reserves;

• Promote health and fitness through provision of open space and opportunities for community involvement in outdoor exercise, sport and active recreations;

• Encourage use of street trees, where appropriate, to define streets, improve the urban environment and provide linkages in habitat networks;

• Promote creation of multi functional habitat networks, such as communal / private courtyards, pocket green spaces and green buildings, which are responsive to a range of microclimatic conditions and provide an experience of nature on people's doorstep;

• Seek the creation of new and enhanced links and corridors between towns and settlements such as cycle ways and footpaths;

• Promote improvements in air, water and soil quality and more sustainable drainage and flood mitigation solutions;

• Seek the protection and rehabilitation of landscapes and habitats damaged or lost by development or land management practices;

Maximise opportunities to enhance and create assets which have the potential to attract visitors, create employment and attract investment to the area;

• Explore the potential of existing and new green infrastructure assets to provide opportunities for renewal energy schemes;

• Promote opportunities for farmers, foresters and other land managers to diversify and promote woodland management, including opportunities for new planting schemes;

• Support key specific projects which would contribute significantly to the Green Infrastructure network.

- **Local Area Plans**

More detailed plans can be developed for local areas, such as the one that SLDC is preparing for the Arnside and Silverdale Area of Outstanding Natural Beauty (AONB), jointly with Lancaster City Council. This will have the AONB designation at its heart and there will be clear opportunities for Green Infrastructure in the plan.

- **Community Infrastructure Levy**

Community Infrastructure Levy and Section 106 agreements are mechanisms to use contributions from developers to fund benefits associated with development, such as a new road. SLDC has established a Community Infrastructure Levy process that will be used to fund improvements – including Green Infrastructure projects – as part of development schemes. It has identified a list of Green Infrastructure projects that may be funded this way, but in reality there is likely to be the need for additional resources to deliver these projects.

- **Kendal Urban Greening**

This is a proposal by SLDC to plant trees and shrubs and to create green walls in Kendal. It was instigated in response to the air quality situation in Kendal town centre, which often exceeds legal nitrogen dioxide levels. A study has been done to identify sites and appropriate planting.

The establishment of a mix of vegetation in urban areas has been proposed as a cost - effective measure to reduce the different types of air pollution, as trees and vegetation serve as effective sinks for the absorption and interception of pollutants in the atmosphere.

Potential benefits include air quality amelioration, biodiversity enhancement, setting for economic growth/regeneration, better image and more investment, property value uplift and contribution to tourism.

- **Green Infrastructure Strategies**

Following on from their Local Plans, Carlisle City Council and Allerdale Borough Council have each prepared a separate Green Infrastructure Plan or Strategy. The Carlisle Green Infrastructure Strategy 2011 produced 71 potential actions for the city to take in order to improve green infrastructure across the district. These actions are generally strategic and include notions of supporting major Green Infrastructure projects, encouraging planting at key gateways and attractions within the city, and improving conditions for biodiversity within parks and green spaces.

Allerdale's Green Infrastructure Plan first identified generic Green Infrastructure opportunities based on existing provision, gaps in provision and projects identified in existing stakeholder improvement plans. Consultation with stakeholders was then undertaken to inform the viability of opportunities identified and to inspire future Green Infrastructure opportunities. From that, the Council developed Green Infrastructure guidelines, options and policies. Opportunities are based upon the six main towns or localities in the borough, which reflects that they are the most populated and the key likely growth areas.

The Carlisle and Allerdale Green Infrastructure documents are useful strategies for their areas and provide examples of best practice for other local authorities to follow.

# Case Study – Carlisle Local Plan Proposal

**Carlisle South**

This project is a good example from the draft Carlisle Local Plan, which will establish a policy framework for the proposed development. It is likely to be one of the biggest urban development proposals within the county. Currently in the very early stages of planning, it will require its own masterplan or area action plan. It is a long-term scheme, and development is not anticipated to start until at least 10 to 15 years into the plan (i.e. after 2025) and will likely take at least another 10 to 20 years after that to be fully realised. These early stages then, are the perfect time to ensure that provision for the investment in Green Infrastructure is woven into the Carlisle South development right from the start.

The proposed urban extension has arisen from the need to balance the distribution of employment land (currently mostly located in the north of the city) with residential development (mostly located in the south) and thus alleviate the need for commuter traffic to pass through the city centre at peak hours. It is also proposed as a means of funding a southern relief road, which would complete the city ring road, half implemented by the Carlisle Northern Development Route, as well as being a means to secure funding through development for a new secondary school – provision for which is badly needed in the city.

**Who is involved?**

Carlisle City Council is leading on the proposals.

**Why is investment needed/what will investment do?**

There is a risk that the focus of developer contributions will be taken up on investing in major grey infrastructure projects, such as the southern relief road. As a result, despite the requirement for the consideration of Green Infrastructure in the Local Plan, developers may argue against contributions towards Green Infrastructure project on viability grounds. Carlisle City Council is keen to explore what other opportunities may be available to ensure that development in Carlisle South is integrated with the city not just through roads, but through rich and active ecological infrastructure networks as well.

# Land Management

There are good examples of partnerships working together to prepare and implement programmes that can achieve a range of Green Infrastructure objectives. Case studies are given on the next pages of Peat Partnerships and a farmer-led initiative called Cumbria Connections. Other current or potential schemes include:

- **Carbon Landscapes**

The Lake District National Park Authority (LDNPA) is the lead member of the Carbon Landscapes Partnership, working on a project about managing land for carbon. It aims to increase the amount of carbon that is sequestered (removed from the atmosphere) to be stored in soils and vegetation than is emitted from the land into the atmosphere. This is known as carbon sink and can help to mitigate climate change.

LDNPA is working with the University of Cumbria to produce information and advice on managing land for carbon. This is a knowledge transfer partnership. They have produced an information booklet for farmers and their advisors and a map of the existing carbon store in Lake District soils and vegetation. They will be using real case studies to look at carbon benefits on Lake District farms.

- **Payment for Ecosystem Services**

The Royal Society for the Protection of Birds (RSPB) is working with Lake District National Park Authority and Nurture Lakeland on a report on the Opportunities for Payment for Ecosystems Services (PES) in Cumbria. It focuses on water quality; water management (including flood risk and alleviation); biodiversity (with reference to delivering on Biodiversity 2020), access and recreation, cultural heritage and the historic environment. It provides an update from 2013 on the carbon findings and assesses the relevance of and any enhanced potential through seeking World Heritage Site Status.

It will determine the potential market for supplying and buying bundles of multiple ecosystem services in the Lake District and other rural areas of Cumbria. It will explore the mechanism of how bundling multiple ecosystem services could work in an upland context and begin to identify the scale of new funding that could be secured through PES for improved land management that supports high quality ecosystem services such as food, water quality, water management, biodiversity, access and recreation, cultural heritage, landscape and health and wellbeing, as well as carbon.

- **Woodland Enterprise Zone**

Cumbria is in a strong position to develop its woodlands and forestry sector, building on previous work undertaken in the county with organisations like the Forestry Commission and Cumbria Woodlands. There are plans to establish a Woodland Enterprise Zone, which can result in increased areas of woodland and better managed woodlands, with economic benefits through growth in the forestry sector and supply chain.

## Case Study – Cumbria Connections

### What is it?

Cumbria Connections is a farmer-led initiative within the Bassenthwaite and Ullswater catchments. It recognises the critical role that farming plays in the economy and environment of the Lake District.

An Action Plan has been prepared for 2014-2020 to work toward a sustainable rural economy in the high fells. The vision is that "*Farm businesses in the Ullswater and Bassenthwaite catchments are profitable and sustainable; and an integral part of a healthy natural environment and vibrant rural economy".* Five objectives are set out, each with associated actions:

- To improve the long-term profitability of farm business enterprises - including actions to invest in farm infrastructure and improve production systems
- To protect and improve the natural environment - including actions to create and restore habitats and woodlands
- To increase relevant local skills and labour - including to establish and promote local labour pools and provide training
- To safeguard the cultural heritage associated with upland farming - including actions to attract young people into farming and to maintain traditional activities
- To improve understanding and foster positive working relationships - including actions for farmers and organisational staff to work together in project development and to educate the public

### Who is involved?

Farmers, The Farmer Network, Natural England and Cumbria Local Nature Partnership

### Why is investment needed/what will investment do?

This is an integrated action plan aimed at a range of actions that are all working toward rural economic sustainability. There may be separate funding streams that become available for some elements of the plan, but a programme is needed that can take a holistic approach to its implementation across all of the objectives, including farming, biodiversity, skills and labour, cultural heritage and promoting a better understanding.

## Case Study – Peat Partnerships

There are currently two peat partnerships being established in Cumbria. These are the Cumbria Peat Partnership and the Pennine Peat Partnership. Both of these partnerships are closely linked to the existing Local Nature Partnerships (LNPs) in the county (respectively the Cumbria LNP and the Northern Upland Chain LNP) and are seeking to bring a strategic approach to the restoration of habitats on peat soils within their respective areas.

Cumbria Wildlife Trust has driven the establishment of the Cumbria Peat Partnership that will share knowledge, develop best practice and actively support the restoration of all peat habitats in Cumbria. The partnership comprises stakeholders with an interest in peatland habitats in Cumbria. Partners will build on the current collaborative working to deliver projects in partnership.

At a strategic level the partnership is seeking to build a business case that establishes the costs and benefits, both financial and environmental, of undertaking restoration. It will lobby for funding to be released for peat restoration work and facilitate positive partnership working between organisations. Finally it is seeking to support carbon management approaches within Cumbria.

At an operational level the partnership will concentrate on direct delivery of peat restoration which includes to:

- Identify suitable sites for restoration;
- Build a collaborative way of working;
- Seek funding as a Partnership to deliver management/restoration of sites;
- Manage of capital works;
- Liaise with landowners; and
- Improve contractor proficiency and encourage new entrants into the market.

The partnerships offer the potential to bring a more holistic and strategic approach to peat restoration that builds on previous work by the likes of the Yorkshire Dales Peat Partnership and Cumbria Wildlife Trust's Upland Wetlands Restoration Project. The partnerships through this approach will encourage and facilitate further delivery on a landscape scale that provides a range of ecosystem services including biodiversity, climate change benefits, water quality improvement and flood risk alleviation.

Between the partnerships there is significant potential to work together on sharing data, expertise and even resources. They are also well placed to link into and benefit from new models of funding such as carbon brokering and payment for ecosystem services.

- **Biodiversity Offsetting**

Biodiversity offsets are conservation activities that are designed to give biodiversity benefits to compensate for losses - ensuring that when a development damages nature (and this damage cannot be avoided) new, bigger or better nature sites will be created. They are different from other types of ecological compensation as they need to show measurable outcomes that are sustained over time.

Defra, Natural England and local councils are working together in six pilot areas to test the biodiversity offsetting approach. The pilot areas are in Devon, Doncaster, Essex, Greater Norwich, Nottinghamshire, Warwickshire, Coventry and Solihull. Guidance for offset providers and developers in the pilot areas has been produced by Defra.

Defra is also working with a wide range of organisations (e.g. Aggregates Industries & Balfour Beatty) on a number of complimentary projects to improve their understanding and develop the evidence base for offsetting. The information gathered from these projects will feed in to an independent evaluation of the biodiversity offsetting pilot phase.

Could and should such schemes be established in Cumbria? Any scheme would need to be developed in conjunction with Local Authorities, potential developers and offset providers. Ultimately it will need to form part of the planning system.

- **Ullswater Whole Valley Plan**

The Ullswater Valley Plan is currently under preparation by a partnership group led by the Lake District National Park Authority. It incorporates objectives and actions under three themes: economy, vibrant communities and environment. It has strong links with the Cumbria Connections project that covers Ullwaster and Bassenthwaite. It is intended to be pilot a whole valley planning approach that can be adopted elsewhere in the Lake District.

- **Woodland Keepers of Time**

Cumbria Woodlands, in conjunction with Cumbria Wildlife Trust is in the early stages of developing a woodland project focused upon woodland County Wildlife Sites in Cumbria. The project will work with local communities to survey woodland sites and identify management issues in order to offer woodland owners advice and active management. The project will also seek to engage local communities and inspire and educate them regarding their local woodland resource.

- **Engaging Communities**

The value of engaging communities in caring for local open spaces has long been recognised. Friends of the Lake District ran a successful 'Our Green Space' programme and is planning to build on its previous work in a 'Greens For Life' project that includes:

- establishing a Cumbria Federation or network of community green spaces and village greens
- working with communities to develop community champions and ambassadors for green spaces
- providing training to increase skills and knowledge so communities are empowered to manage their green spaces

- developing a community tool kit or starter pack advising on all topics relating to the care of village greens.
- celebrating heritage by working with communities to explore and celebrate the heritage of their village greens and put them back at the heart of community life
- engaging the next generation through schools and youth groups
- helping the health and wellbeing agenda by encouraging physical exercise on greens and mental wellbeing

- **Catchment Management**

The way that we manage land and water has come to the fore recently because of the increased occurrence and intensity of flooding. There is a need for organisations to work together on a landscape scale to achieve long-term improvements in the way that we manage land and its effect on water movement. A case study is given on the next page that shows how a range of Green Infrastructure benefits can be achieved.

United Utilities' planned waste water catchment programme includes a project for waste water which is a multi-million pound scheme looking at ways of delivering improvements across land that is not in their ownership. This will cover rural and urban schemes, such as Sustainable Urban Drainage Systems. It takes a catchment-scale approach and the proposals fit well with Green Infrastructure principles. United Utilities is also planning improvements to its own land to meet Water Framework Directive requirements for water destined for human consumption.

There are major issues concerning water supply in West Cumbria because permission to abstract water from Ennerdale will cease for environmental reasons. Substantial works are required to transfer water from Thirlmere to West Cumbria, at a cost of around £800 million. A team is working on these proposals and there is an opportunity to incorporate Green Infrastructure and realise positive economic outputs.

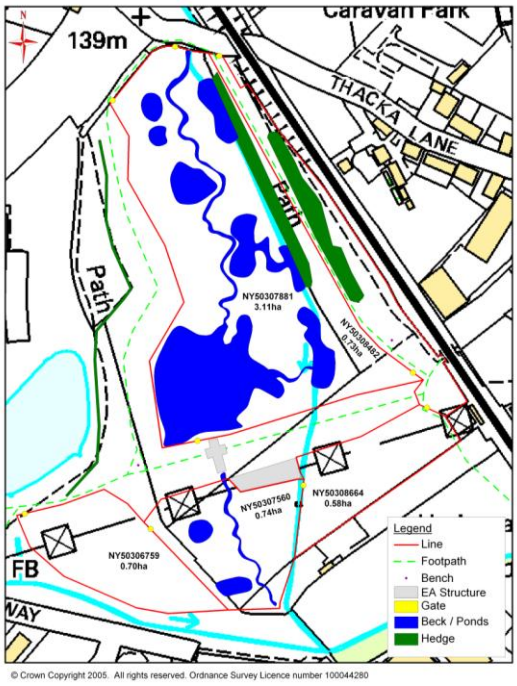
- **River Restoration Programmes**

There are four Rivers Trusts that operate in the county: West Cumbria, South Cumbria, Lune and Eden. They prepare strategies for river basins and catchments and implement projects to restore rivers and catchments. Eden Rivers Trust, for example, has prepared a River Restoration Strategy and is planning projects in Carlisle that will benefit wildlife and people.

# Case Study – Thacka Beck

At one time Thacka Beck ran in a canalised channel along the edge of a field near Gilwilly Industrial Estate in Penrith, until it was transformed as part of an Environment Agency Flood Alleviation Scheme completed in 2011. Large sections of the beck run in culverts beneath the town and these were prone to overflowing, resulting in floods before the scheme was carried out, so a means to store the excess in times of heavy rainfall was required.

The field was enclosed with the construction of earth bunds and the stream realigned to follow a more natural, meandering channel. The bund has the effect of raising the water table, resulting in a series of wetland habitats of such quality that the site is now managed as a nature reserve by Cumbria Wildlife Trust. When necessary, however, a sluice can be temporarily closed to create a reservoir with a water storage capacity of many tens of thousands of cubic metres that can then be slowly released without the downstream impacts that had previously blighted the town.





Whilst the project was initiated primarily as a flood control mechanism, the formerly species-poor site has been transformed, with the creation of ponds and meadows and the introduction of conservation grazing and careful habitat management. Thacka Beck Nature Reserve now boasts records of well over 100 species of plants, almost 100 bird species as well as many butterflies, dragonflies and other insects, amphibians and mammals, including otters.

The site is open to the public and is well-visited, providing a very popular dog-walking route along disabled access paths following a half-mile circuit along the top of the water containment bunds.

In terms of its role as part of the Green Infrastructure of the area, the site contributes to flood control, water quality improvement, reduction in atmospheric pollution and enhanced biodiversity, as well as providing a gateway to the wider countryside, a pleasant location for healthy exercise and an educational resource.

# Land Management for Biodiversity

Projects aimed primarily at conserving habitats or species often realise a range of social benefits too and can contribute to the economy. Improving the environment leads to a better image for investment, for example, and protecting bees means conserving pollination which secures our food supply. Projects planned for species-rich grassland that will deliver Green Infrastructure benefits include:

- **Small Blue butterfly**

The Small Blue Butterfly is found in Cumbria only in a narrow coastal strip between Maryport and St Bees Head. Cumbria's population is at risk directly from development at key sites along the coast, and also from increasing habitat fragmentation and lack of habitat connectivity. The important areas include a number of publicly accessible sites, such as Maryport Coastal Park, where habitat management and enhancement would provide a range of benefits. The project is managed by the Small Blue Butterfly Conservation Network with a wide range of members.

- **Meadowlife**

This is a project led by Cumbria Wildlife Trust, funded by Heritage Lottery. It works with farmers and small holders to enhance, restore and manage flower rich hay meadows, using traditional practices to increase plant diversity. It includes events, educational workshops, walks and talks to raise awareness of the habitat and its place in our landscape.

- **Coast to Coast Bee Roads**

Buglife, in collaboration with the Co-operative Group and the Cumbria, Lancashire and Greater Manchester Local Nature Partnerships, is leading on a Coast to Coast Bee Roads project. It aims to create B-Lines running from east to west across the north of England as part of a national initiative, which is identifying and then aiming to develop a UK-wide network of wildflower-rich meadows and grasslands.

- **Morecambe Bay Nature Improvement Area**

The aim for the Morecambe Bay Nature Improvement Areas is to improve the landscape for people and nature through restoring, expanding and joining up wildlife-rich areas. It works in partnership with farmers and landowners to secure the restoration of over 900ha wetland, woodland and grassland priority habitat to benefit species such as lapwing, curlew, butterflies, woodland birds, orchids and wildflowers.

- **Nectarworks North Pennines**

Nectarworks is a project which the North Pennines Area of Outstanding Natural Beauty Partnership would like to extend. It aims to enthuse, educate and enable communities to take action for bumblebees and other pollinators by restoring and increasing flower-rich habitats. Key actions include to survey flower-rich habitats, instigate appropriate management in partnership with landowners, work with local primary schools, residents and community groups, deliver associated educational activities and establish a community network and training especially for smallholders in the North Pennines area.

- **Managing our wildflower-rich road verges.**

Cumbria County Council is looking for ways to ensure that the high quality management of our flower-rich 'Special 'roadside verges continues despite current budget cuts. The council is looking for potential partnership working to add value to the cutting schedules, particularly to help manage our absolute best roadside verges. This would involve mowing/strimming, and collection of the arisings, at the best times of year. This could possibly be incorporated in with a green composting facility.

# Remit of the Group and Next Steps

The Green Infrastructure Thematic Group was established in early 2014 and has a membership representing a wide variety of organisations (see Appendix 1). The group acts as a sub group of the Cumbria Local Nature Partnership and will report to it on a regular basis. Meetings of the group are currently chaired by Graham Jackson-Pitt of Cumbria Wildlife Trust.

This strategy and its companion document, Literature Review and Evidence Base, outline the development and current status of Green Infrastructure policies and priorities for land use planning and land management in Cumbria.

The purpose of the Thematic Group is to further develop and implement this strategy. The role of group members is to work individually and collectively in the following key ways:

1) To champion Green Infrastructure within and beyond their own organisations.

2) To provide advice, exchange information and facilitate knowledge transfer.

3) To encourage positive partnership working between organisations.

4) To prioritise and promote those schemes identified in the strategy that best demonstrate where investment can result in a range of Green Infrastructure benefits.

5) To lobby for investment in Green Infrastructure work and to seek funding to help implement priority projects.

The next steps for the Green Infrastructure Thematic Group are to:

1) Consider and refine the suite of projects contained within the strategy. Each project owner should analyse its potential for Green Infrastructure – with advice from the group – and develop a business case establishing the costs and benefits of implementing a Green Infrastructure approach.

2) Liaise with complimentary initiatives, such as the Payment for Ecosystem Services pilot. Explore opportunities for knowledge sharing and collaborative working.

3) Work with other strategic partnerships, such as the Cumbria Local Enterprise Partnership and the Cumbria Health and Wellbeing Board, to strengthen Green Infrastructure throughout the county.

The Cumbria Green Infrastructure Investment Strategy will be reviewed and updated as required by the Green Infrastructure Thematic Group, ensuring that it is line with established policy and best practice.

**Appendix 1**

**Members of the Green Infrastructure Thematic Group who Contributed to this Document**

| | |
|---|---|
| Martin Allman | Cumbria County Council |
| James Anderson-Bickley | Forestry Commission |
| Cameron Austin-Fell | Eden District Council |
| Rebecca Barrett | North Pennines AONB |
| Samantha Bradley | Eden District Council |
| Judy Clavey | Lake District National Park |
| Jan Darrall | Friends of the Lake District |
| John Gorst | United Utilities |
| David Harpley | Cumbria Wildlife Trust |
| Chris Hoban | Copeland Borough Council |
| Helen Houston | Barrow-in-Furness Borough Council |
| Simon Humphries | Natural England |
| Graham Jackson-Pitt | Cumbria Local Nature Partnership |
| Simon Johnson | Eden Rivers Trust |
| Steve Lund | Natural England |
| Edward Mills | Cumbria Woodlands |
| Judy Palmer | Cumbria County Council |
| Jessica Patten | Environment Agency |
| Peter Shannon | Allerdale Borough Council |
| Kate Willshaw | Friends of the Lake District |
| Richard Wood | Carlisle City Council |
| Lorayne Woodend | South Lakeland District Council |
| Andy Yuille | North West Environment Link |