



Green Growth for Green Communities

A selection of regional case studies

ParkCity Conference 2009

www.naturalengland.org.uk



Introduction

Natural England is the government's advisor on the natural environment. We are here to conserve biodiversity and landscapes, for their intrinsic value, for the wellbeing and enjoyment of people and the economic prosperity that they bring.

The beauty and wonder of the natural environment inspires and enriches our lives; it is important in defining our sense of place in both rural and urban areas.

We aim to deliver these benefits close to where people live and work. The evidence we have gathered demonstrates the essential role the natural environment plays in adapting to climate change, improving public health, and enhancing the quality of life. With key partners, we have published Green Infrastructure Strategies in every English region and helped to get all-important delivery projects off the ground across the country.

ParkCity provides us with a real opportunity to focus our efforts on moving from strategy to delivery. We are making the case for green infrastructure and showcasing its benefits to ensure that the natural environment becomes integral to the revitalisation of our towns and cities.

Green infrastructure is the network of green spaces and natural elements that intersperse and connect our cities, towns and villages. It is the open spaces, waterways, gardens, woodlands, green corridors, wildlife habitats, street trees, natural heritage and open countryside. Green infrastructure provides multiple benefits for the economy, the environment and people.

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Natural England believes that green infrastructure is an essential component of creating sustainable communities. The following pages describe our contribution to securing green infrastructure across England.

The Case studies show where we have engaged to ensure that the benefits of green infrastructure are being put in place in all nine regions.

Check list for green infrastructure

Inspire: Create an inspirational vision and win the support of local communities and decision makers. This is clearly demonstrated by the work Natural England has done in the North East in West Park.

Partner: Pull together broad-based partnerships that deliver new schemes and projects effectively and efficiently. The Greening the Gateway Partnership, spanning three regions in the Thames Estuary is a very strong example of how partnerships can drive delivery.

Enhance and Protect: Create and protect sites and habitats for people and wildlife, dove-tail creation of new areas with existing projects and natural green spaces. This is beautifully illustrated by East London's award winning example of green infrastructure, the Green Grid. A key aspect of green infrastructure is that we are able to design urban and rural landscapes that will cushion our communities from the effects of climate change. One outstanding example of this is Upton Sustainable Urban Drainage System (SUDS) in Northampton.

Benefit: Ensure the benefits of green infrastructure to the local and regional economy is fully appreciated by businesses and decision makers. Natural Economy Northwest is a convincing example.

Design and Innovate: Ensure our designs for natural green spaces and networks play a direct role in improving the lives, livelihoods and health of local people and communities so that these innovations are promoted and understood. The West Park project in the North East is an award-winning example. New research and the latest technology are always used where appropriate. The Environmental Character Assessment that has been created for Northamptonshire is an example of visionary computer technology being used to help promote sustainable design.

Manage: Ensure long-term management of spaces is secured to retain quality green infrastructure with its many benefits. In all of the projects presented, Natural England's expertise in management of land for the benefit of the natural environment where people live and work has been critical.

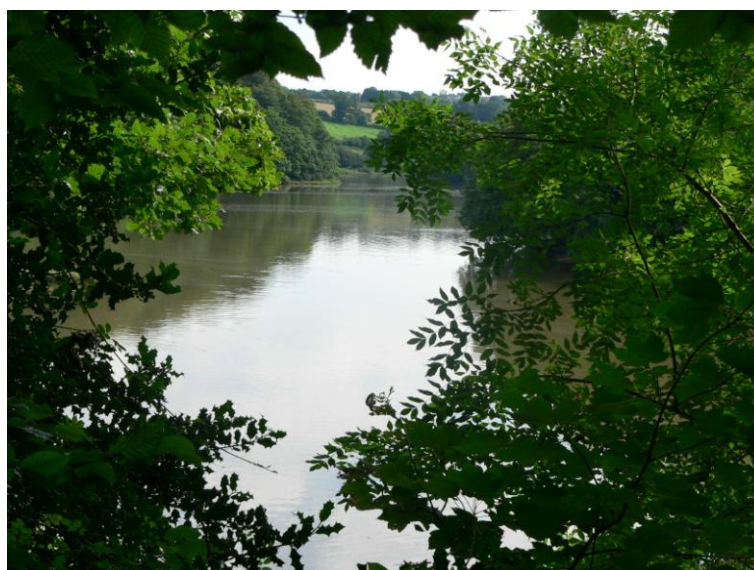
Monitor Achievement and Celebrate Success: We monitor the progress that has been made and check that we are continually improving and delivering our objectives for the natural environment and people. In the South East three vulnerable species are being closely observed at Thames Basin Heath, to ensure the scheme is securing the desired outcomes for this internationally important heathland. Natural England shares and celebrates its success with our partners and local communities.

South West

The South West enjoys a spectacular natural environment that has long been recognised as a key driver for the region delivering major economic and environmental benefits. Much of the area is protected and rightly attracts many people to visit or to live and work in the region.

However, whilst the rural population can access this high quality environment there is clear evidence that the population in the major urban areas has fewer opportunities. The challenge for the South West is to secure an urban environment that enables the local population to experience the natural environment close to where they live, and to take advantage of the health and welfare benefits that this provides.

Natural England's focus on green infrastructure in the South West has been to influence decision makers and developers to ensure that the region retains its reputation for high quality green environment. We advocate at every level the benefits to people and to nature of getting green infrastructure right, we provide grants and lever in funding for projects and we regulate where necessary to ensure that where there is green infrastructure development – it is of an acceptably high standard.



The Plymouth Green Infrastructure Project

- Planning for a green and pleasant future for an expanding population.

Plymouth is one of those cities that seems to have it all: moorland, farmland, rivers, estuaries and the sea. Just a few miles away is Dartmoor, one of the largest National Parks in the UK and one of the last great wildernesses in Britain. Surrounding the city are three Areas of Outstanding Natural Beauty (AONB), including the Tamar Valley. In addition, Plymouth has a superb coastline with beautiful beaches, access to fishing villages, fantastic diving and plentiful marine wildlife. A third of the city itself is composed of green space. However, Plymouth is set to grow substantially: the existing population of 246,000 is likely to rise to 300,000 by 2021. There is a real challenge to keep the quality green spaces and improve on the condition of others when faced with the pressure of an expanding population.

The Plymouth Green Infrastructure project led by Natural England, is a cross-border collaboration with South Hams District Council, Plymouth City Council, the Woodland Trust and the Forestry Commission.

The project will enhance Plymouth's unique natural setting and its links with the countryside and the surrounding landscape, providing benefits to the community by creating new and improved community parks, better recreational links, initiatives to develop wood for fuel and local food schemes, a co-ordinated approach to climate change adaptation and enhanced links to the marine environment.

Stoke Park and Bristol Beef, Bristol

- Improving the quality of the landscape, improving the quality of life – bringing the countryside back to the people in the town



As you drive into Bristol from the east, a vista of land sweeps up to a semi-wooded skyline and an impressive mansion. This is Stoke Park, designed and developed by Thomas Wright in 1749. Key features of his planting – imported trees set within glades and grassy rides – have not survived but the park does have bluebell and wild garlic filled woods and the slopes are covered with pyramidal orchids, cowslip and wild thyme in late spring. A cycle path runs through the centre, past a large pond, and the park is well used by local residents. A development of 1,200 houses is currently being built alongside one edge.

Natural England has contributed to an innovative feasibility study for the restoration and long term management of the Park: the council hopes to gain ownership of the area so that it can be added to its current suite of historic and cultural green spaces, which include Ashton Court, Blaise Castle and Snuff Mills. The plan being put forward is to manage part of the park by grazing traditional cattle for beef and cut the graze for hay, which will help to enrich the grassland for flowering plants. Ideas include providing local schools with the beef from the park as this will help to raise awareness of local food and where beef comes from. Any future revenue arising from the Bristol Beef will be reinvested in the Park.

Other green infrastructure projects from the South West

Poole - Enabling Additional Farmland as Part of Green Infrastructure.	
Activity	To transfer farm land into Upton Country Park, Poole
Partner	Poole Borough Council
What benefits are being secured	Increased accessible green space close to where people live and future new developments (Poole Growth Point) 65 ha extension Very substantial creation of new greenspace and options for a bridge are being considered.
Natural England's role	Influencer, advocate, a small amount of funds offered to support the necessary legal process.
What difference Natural England are making	Having a strategic overview, we are able to support the connecting up of multifunctional green spaces. We can reduce simple barriers that are preventing the benefits being felt by those living nearby.
Weston Super Mare - Locking Castle Green Space Community Engagement,	
Activity	To demonstrate how green infrastructure on new developments can be enhanced to provide multiple benefits, and specifically through engaging with the local community
Partners	North Somerset Unitary Authority, Forest of Avon, local communities.
What benefits are being secured	Better understanding of current use of local green space and how it might be improved to better serve community needs. Ideas include gateway signing, interpretation, rhynes clearance and management and selected tree planting. Local engagement should also raise awareness of the value of local green space and help to secure its long term management by encouraging active involvement from the community, particularly local schools. Strategically the project links to delivery of a range of North Somerset plans and strategies, including the Sustainable Communities Strategy, the rights of way improvement plans and biodiversity action plan, all of which recognise the link between a high quality environment and people's quality of life. £15K in funding has been levered into the project
Natural England's role	Influencer, advocate, specialist, coordinator, provider of incentive/lever
What difference we are making	Improving the understanding about the role that communities can play in design and management of new green space - engaging young people and schools.

Stour Valley Regional Park Scoping Activity	
Activity	To promote the incorporation and development of a new and larger recreational space along the Stour Valley serving the conurbation, responding to the potential growth in the area. This area is of significant environmental quality and this new space will provide additional sustainable green infrastructure.
Partners	Bournemouth, Poole and Christchurch Borough Councils, Dorset County Council, East Dorset District Council and Environment Agency
What benefits are being secured	This project has now been acknowledged by all the partners and will be recognised within a cross -boundary green infrastructure development plan document. The Environment Agency have put £9,000 into the project Over long term the area of improvement might be in the order of 1000 ha
Natural England's role	Influencer, advocate, grant aider and regulator
What difference we are making	Bringing our expertise in multi-functional green infrastructure and its benefits to enhance the sustainable management of the natural environment in and around Bournemouth and Poole in the long term. Enabled improved partnership working across boundaries in south east Dorset.

South East

By virtue of its high quality environment and accessibility to European cities, South East England has for many years been subject to pressures for development and land use change. While the region's major green spaces and woodlands have largely been protected from development, future housing and economic growth in the region could reduce the amount and quality of green infrastructure. Climate change will increase these pressures.

The South East case studies provided show just how important it is to plan positively, work in partnership and maximise the opportunities that growth can provide.

Also in the South East, a Green Infrastructure Partnership has been established to add value to existing regional green infrastructure activity and broker strong partnership working arrangements, resulting in the planning and delivery of high quality green infrastructure across the South East.

With the geographic pressure on the region from London and the proximity to Europe, Natural England has had to take a very robust role in ensuring adequate provision is made for the green infrastructure. We lead partnerships of organisations with the best expertise, we advocate at all levels the environmental, social and financial benefits of green infrastructure, we seek to influence at a policy and decision making level, we bring our own specialist knowledge and experience, and finally we offer financial support to make things happen.

Thames Gateway, North Kent

“...achieve a radical transformation in the quality of the urban environment across north Kent, together with the conservation of adjacent high-quality countryside assets and improved access to them. “

Greening the Gateway Kent and Medway's vision



North Kent is famous for its estuaries and marshes to the north of the region, which are of international ecological importance, and Kent Downs, lying to the south, is an area of outstanding natural beauty. In between live half a million people and this figure is set to rise substantially. Greening the Gateway Kent and Medway (GTGKM) was established to develop a green infrastructure strategy for North Kent and is now delivering five Thames Gateway Parkland projects. Natural England takes a very active lead in this partnership, we are part-funding the director's post. And we bring our expertise to advocate, and influence on the project's behalf.

One of several projects chosen to achieve these objectives across Kent is Milton Creek. Once the site of a thriving barge-building industry and a bustling port that supplied London with building materials and produce from Kent's rich agricultural land, the area has experienced an environmental and economic decline. This project aims to transform the creek back into the green heart of Sittingbourne and make it a highly accessible and attractive asset to the local residents. Plans are in place to provide new links with the town centre, Swale marshes and to create a 50 hectare green space from a brownfield site as well as enhancing the Church Marshes Country Park. One of the central plans is to realign the ancient Saxon Shore Way so that it runs along the edge of the creek, as well as enhancing wildlife habitats within this extended country park. GTGKM also hope to develop and improve information about Milton Creek's heritage and culture, benefiting the community by making it an historically attractive local site that affords better access to both countryside and coast as well as providing high quality green space by the creek.

www.gtgkm.org.uk

Thames Basin Heaths, South East

- The prize will be a working demonstration of true sustainable development, with: efficient planning and delivery of housing provision; a healthy heathland to hand on to future generations; and, where justified by an assessment of recreational needs, new and/or enhanced green space for local communities.

Thames Basin Heath Delivery Framework

Thames Basin Heaths is a highly fragmented area amidst the heavily urbanised Thames Valley area facing considerable pressure from further development. However, it's a Special Protection Area (SPA) comprised of 13 Sites of Special Scientific Interest (SSSIs) due in part to the presence of three species of breeding birds: Wood Lark, Dartford Warbler and Nightjar.

The Thames Basin Heaths Delivery Framework, influenced by Natural England, aims to safeguard these vulnerable species from recreational use of the heaths as well as devising a ground-breaking approach to delivering the housing allocations across 11 Local Planning Authorities in the Thames Basin. The plan is to link conservation measures to protect these species from housing development. Under this initiative a series of planning zones have been defined around the SPA. Within the zone adjacent to the SPA, no new housing development should be permitted. Within the surrounding zones, tiered conditions for new or improved green space provision would apply.

In addition, Natural England continues to advise on how the habitat itself will be improved and restored and these three key species will be monitored; in the future additional species will also be targeted. The benefits to the local residents who will be able to enjoy the site without harming its special wildlife will equal the benefits to the wildlife which will enjoy increased protection.



Dartford Warbler

- South East region covers 1,941,285 Hectares
- 139,070 Hectares of that is accessible natural greenspace
- 20% of all households in the region have access to a site of at least two hectares within 300 metres
- 66% of all households in the region have access to a site of at least 20 hectares within 2 kilometres
- 77% of all households in the region have access to a site of at least 100 hectares within 5 kilometres
- 46% of all households in the region have access to a site of at least 500 hectares within 10 kilometres
- 10% of all households in the region do not have access to accessible natural greenspace within the definitions of the Access to Natural Green Space Standards model

Other green infrastructure projects from the South East

Partnership for Urban South Hampshire (PUSH) Green Infrastructure Strategy	
Activity	To deliver multifunctional green space within the PUSH Growth Point. This is one of the most challenging Growth Points because the area is already very built-up and encompasses 11 local authorities
Partner	11 PUSH local authorities, Environment Agency, Forestry Commission, RSPB, New Forest National Park Authority
What benefits are being secured	Meeting Access to Natural Green Space Standards targets, local biodiversity action plans, mitigation of impacts on European sites including recreational disturbance and managed realignment
Natural England's role	To influence the strategy to meet Natural England strategic outcomes
What difference are we making	We have successfully steered the development of the strategy and also agreed the protocol for a Multi Area Agreement to help ensure cross border working with PUSH Las and its partners
North Whiteley, Winchester	
Activity	To deliver a health agenda, avoid impacts on European Sites, improve access to Whiteley SSSI
Partners	Winchester City Council, Forest Enterprise, Environment Agency
What benefits are being secured	Doorstep access to robust woodland SSSI, to limit numbers of people driving to New Forest SPA. Improved long term relations with Forest Enterprise. Over 100 ha enhanced and monitored, as well as new linkages between woodland and marine habitat
Natural England's role	Influencer and more importantly negotiator – bring together Winchester City Council and Forest Enterprise for mutual gain
What difference we are making	Bringing together our stakeholders to deliver robust habitat/linkages and health opportunities

London

As a World City London is set to grow for the foreseeable future. From a base of 7.5 million in 2006 London's population is projected to increase to 8.5 million by 2026, with a consequent growth in households by at least 560,000.

This continued growth will bring significant social and environmental challenges. These are likely to be exacerbated by the impacts of climate change, urban areas being particularly vulnerable to extreme events such as heatwaves and flooding.

Consequently, the Mayor is working with key partners - including Natural England – to ensure an urban greening programme is catalysed and delivered through the forthcoming London Climate Change Adaptation Strategy and supplementary guidance to the London Plan on green infrastructure.

Natural England is also taking the lead on Greening the Gateway work to ensure green infrastructure is at the heart of the Thames Gateway development. We are also working closely with partners on the green infrastructure elements of the 2012 Olympics.

East London Green Grid, London

- Award winning vision – award winning delivery.

London is one of the greenest capitals in the world with a large number of parks and leafy suburbs. However, some areas of east London are deficient in green spaces; for instance, 22 percent of east Londoners do not have access to a regional park; a third of the area does not have a local park within 400m of people's homes and large areas have no sites dedicated to wildlife. The aim of the East London Green Grid (ELGG) is to create a network of interlinked, multi-purpose open spaces with good connections to the areas where people live and work, and to the Green Belt and the Thames. The ELGG is delivered through six area frameworks which reflect natural and administrative divisions within east London. Each has a working group developing key partnerships co-ordinating a series of implementation projects that pay particular attention to regeneration and adaptation to climate change.

“The Green Grid will create a network of interlinked, multi-purpose and high quality open spaces that connect with areas where people live and work with town centres, public transport, the countryside in the urban fringe and the river Thames. These will be popular, full of people kicking balls and flying kites, watching the clouds and the birds, growing food, picnicking or playing, paint-balling or partying or parachuting. These peopled landscapes will support and frame east London's growth.”

Richard Rogers, Architect

Natural England's role in helping to implement the ELGG is by:

- ensuring the effective management of the SSSIs at Rainham Marshes, the Ingrebourne Valley and Walthamstow Marshes, through our agri-environment schemes
- shaping the masterplanning of major development and regeneration schemes at Barking Riverside and the Olympics & Lower Lea Valley
- promoting access to those parts of the network which currently have limited access, such as Walthamstow Reservoirs
- increasing the number of Walking the Way to Health schemes in the areas of most deprivation
- ensuring the principles of ELGG are reflected in Local development Frameworks, Open Space Strategies and Climate Change Adaptation Plans

As a living network of open spaces, river and other corridors connecting urban areas to the river Thames, the Green Belt and beyond, the Green Grid will:

- provide new and enhance existing public open spaces, whilst reducing areas of deficiency
- provide public access along the Thames tributaries and green networks
- provide a range of formal and informal recreational uses and landscapes, thereby promoting healthy living
- provide new and enhance existing wildlife sites
- manage water collection, and flood risk with multi-functional spaces
- combat the effects of the urban heat island
- provide beautiful, diverse and managed green infrastructure to the highest standards for people and wildlife
- In 2008 the East London Green Grid won the prestigious Landscape Institute's President's award

www.london.gov.uk/mayor/auu/green-grid.jsp
www.designforlondon.gov.uk/projectELGG.html

Rainham Marshes- Wildspace for a World City

- a special site in the heart of London

One of the few remaining marshes dating back to Medieval times, Rainham, Wennington and Aveley Marshes, were closed to the public for over a century as the area was used by the military. The inner Thames marshes were notified as an SSSI in 1986 and in 2000 the RSPB acquired part of the site. One of the largest remaining wetlands in the upper Thames estuary, it is now a fantastic place to watch wading birds in summer and large flocks of wild ducks in winter from the comfort of an innovative and award-winning visitor centre.



“I first saw Rainham Marshes 44 years ago; it was a paradise for the London based birder but possibly not so attractive to many others. Over the last five years it’s been a delight to work with the RSPB and its partners and to see the transformation of the Marsh into an internationally important nature reserve.”

Bill Oddie

Rainham Marshes is part of what will be, by 2015, ‘Wildspace - for a World City’. At 800 hectares, Wildspace will be the jewel in the Green Grid: a model of sustainable development within the Thames Gateway. Wildspace will knit together the land between Rainham and Purfleet to create a single unit celebrating the wildlife and diversity of the Thames Marshes and providing extensive new access alongside the Thames. As well as being a place to enjoy wildlife, this ambitious project will also make a significant contribution to the social and economic regeneration of London Riverside. Natural England is part of the project steering group and is funding a project officer who will have a coordinating role.

Natural England’s involvement in Wildspace enables us to help secure a healthy natural environment, that is accessible to people and more resilient to climate change, in one of the most important areas for growth in London.

We are working with site managers to achieve and maintain favourable condition across the SSSI. We promote habitat and species enhancements through environmental management, including the use of agri-environment schemes. We are also working with Partners on the habitat creation opportunities on land adjacent to the SSSI.

We are running an Access to Natural Greenspace Standards project, aiming to reach out to potential visitors from 'hard-to-reach' and diverse communities in East London through promotion and direct engagement. We will also work with Partners to promote the 'wild and healthy' exercise opportunities provided through improved access and walking/cycling routes.

We will ensure the project informs and shapes the wider regeneration of London Riverside by influencing planning proposals and ensuring green infrastructure is implanted in planning frameworks. We will continue to promote the importance of Wildspace as a key Thames Gateway Parklands project.

London Riverside Regeneration and Physical Development Framework

- Land to accommodate 20% of London Thames Gateway's projected housing growth to 2016
- Possesses at least 223 hectares of brown-field land available for development and employment uses
- London Riverside set to contribute up to 10% of London Thames Gateway's projected jobs growth
- Home to 625 hectares of protected natural habitat – at Site of Special Scientific Interest at Rainham Marshes within Wildspace
- Incorporates 19 miles of river frontage

www.rspb.org.uk/reserves/guide/r/rainhammarshes/
www.ltgdc.org.uk/PDF/visionforlondonriverside.pdf

Other green infrastructure projects from London

Barking Riverside/Design for Biodiversity	
Activity	To influence the development of London's largest housing development site to ensure it is underpinned by green infrastructure and becomes a key transformational project for the Thames Gateway. To learn the lessons of this engagement and feed into the 'Design for Biodiversity' joint initiative to provide targeted advice for developers on how to incorporate natural environment objectives into development projects.
Partner	Barking Riverside Ltd; London Development Agency; Groundwork; London Wildlife Trust
What benefits are being secured	A learning process by which the natural environment sector is developing its understanding about how to influence the development process. In addition we are part-funding a landscaping scheme around the Barking Riverside project office, which will showcase and experiment with a range of formal and less formal landscape treatments that deliver ecological functions as well as aesthetic appeal. This project will deliver better quality green infrastructure as the development is built (across the largest housing development in Europe).
Natural England's role	Guiding the Design for Biodiversity initiative
What difference Natural England are making	Barking Riverside Ltd is beginning to make green infrastructure a significant 'selling point' of their development. Design for Biodiversity is increasingly cited as a key reference.
Mayesbrook Park	
Activity	To transform this east London park to create an exemplar of climate change adaptation and community involvement in green infrastructure.
Partners	Barking & Dagenham Council; Environment Agency; Thames Rivers Restoration Trust.
What benefits are being secured	This project is the urban strand of the Wetland Vision delivery. One significant component of the transformation of the park will be river restoration. As well as delivering the Wetland Vision's biodiversity objectives it will make the link to climate change adaptation and community involvement
Natural England's role	To advise on the proposals for the transformation of the park; to support the partnership through providing part of the funding for feasibility and design work. In addition we are developing a Natural Connections project that will engage the local community in green infrastructure design and management.
What difference we are making	Natural England's involvement will ensure the transformation of the park is informed as much by climate change adaptation and community involvement as by river restoration targets.

Thames Gateway Parklands	
Activity	Parklands aims to provide a network of accessible, high quality and sustainable landscapes and waterways which capitalise on existing natural, built, historic and cultural assets. It will be a key economic driver in the Gateway, encouraging investment and supporting regeneration and a great example of the green infrastructure approach we have advocated.
Partner	Local Authorities, Department for Communities and Local Government (DCLG), the Housing and Communities Agency (HCA), 3 regional development agencies and a wide range of partners in the Greening the Gateway Partnership.
What benefits are being secured	Habitat improvements for Biodiversity and landscape; access, recreation and health benefits Natural England provides funding towards green grid officers in each of the three sub regions: south Essex, north Kent and east London of £20-25k each, as well as Natural England officer time. This activity has levered in £30million from DCLG together with 40% match funding from various partners.
Natural England's role	Natural England chairs the Greening the Gateway Partnership and has been instrumental in achieving this progress.
What difference Natural England are making	Raising the profile of green infrastructure within DCLG and of centrality of natural environment to the vision. Driving partnership working. Providing expertise on green infrastructure, its functions and benefits.
Thames Gateway Eco Region	
Activity	To be the first ecoregion in the UK providing high standards and an integrated strategy across environmental themes
Partners	Local authorities, DCLG, HCA, 3 RDA's and a wide range of partners in the Greening the Gateway partnership.
What benefits are being secured	Biodiversity, landscape, climate change adaptation, water quality and usage, walking/cycling routes, energy efficient construction.
Natural England's role	Having had a large input into the Eco-region prospectus we are leading on the Biodiversity, Landscape and Parklands workstream
What difference we are making	Making significant case for biodiversity, landscape and eco-system services.

East of England

The green infrastructure challenge in the East of England is to see the completed green infrastructure strategies translated into delivery on the ground, both through the planning system and by direct partnership action. Natural England's role in many green infrastructure partnerships is leadership, partnership-building and enabling.

These two case studies illustrate how Natural England has been the catalyst and co-ordinator of the delivery-planning process. In both South Peterborough and the Stort Valley, Harlow, the delivery of priority projects is now underway thanks to successful funding bids.

South Peterborough Green Parks Delivery Plan, East of England

- Connecting communities to nature on their doorstep

The Hamptons is a brand new development south of Peterborough. Natural England brought together two major developers and many other interested organisations to discuss and agree priorities.. Connectivity emerged as a key theme including improved links for people and wildlife between Hamptons and the city to the north and Great Fen to the south.



The charity, Froglife, carried out a survey of families in the area, partly funded by Natural England, which showed that many residents had little knowledge of the natural environment on their doorstep. This led to the city council creating a website showing green spaces as well as the provision of handheld computers (the Mobile Explorer Project) that tell the user about local walks and wildlife. Natural England worked with the developers, O&H Hamptons, to create a Sustainable Urban Drainage System (SUDS), which includes lakes and ponds that provide a suitable habitat for wildlife as well as recreational use. Furthermore, Natural England has

facilitated the protection of Orton Pit, a clay pit SSSI (Special Site of Scientific Interest) and SAC (Special Areas of Conservation) that is home to around 30,000 great-crested newts and rare plants such as the bearded stonewort.

The choice is stark: either we provide new developments with parks, nature reserves and informal green spaces that can work together to create places that are attractive and support healthy communities or we have carbon-neutral battery farms for people.
Sir Martin Doughty, Natural England's Chair 2007-2009

www.naturalnet.org.uk

Stort Valley, East of England

- room for healthy activity in the natural environment

The Stort Valley runs along the border between Essex and Hertfordshire; the River Stort becomes a canal at Bishop's Stortford and acts as the spine of this valley, creating a wildlife corridor and a scenic route for transport and recreation. In spite of the proximity of the M11 and Stansted airport, the valley is rich in wildlife. Natural England has been working with its partners to provide access to more areas, outreach to the local community and links from the valley to the wider network of pathways throughout Hertfordshire. A local Primary Care Trust has agreed to develop a programme of health walks in Harlow and Natural England are providing information on where the walks can go as routes are upgraded and new sites become accessible. This year British Waterways has been awarded funding to upgrade a 2.4 km section of the towpath near Harlow, including many of the footpaths that connect to this stretch of the canal. The Herts and Middlesex Wildlife Trusts have also been awarded funding for an outreach project working with local communities to encourage much greater use of the paths and sites along the Stort Valley. This grant will facilitate the employment of a project officer who will work with local community groups to host events, publicise green spaces and also offer trips on a narrow boat to encourage local people to visit the attractive nature conservation sites within their valley.

www.stortvalleywild.co.uk



Other green infrastructure projects from the East of England

Development of the Green Infrastructure Strategy with Housing Growth	
Activity	To develop a green infrastructure strategy for Cambridgeshire
Partners	Cambridge Horizons, the County Council, local authorities, relevant regional and national bodies, and local nature and conservation charities and organisations.
What benefits are being secured	<p>Faced with the challenge of providing at least 73,000 homes in the next 20 years, the Cambridgeshire green infrastructure strategy was launched in 2006 to lead the way in achieving sustainable housing growth.</p> <p>To embed non-statutory green infrastructure into the planning process, the strategy is being delivered in partnership with the Housing Growth Fund and individual stakeholders. Their combined approach has ensured that multi-functional green space is integrated into major development proposals.</p> <p>The benefits of green infrastructure and its objectives have been widely recognised, with strong political support and stakeholder buy-in in particular, given the role of the strategy in supporting the delivery of excellence in new housing developments.</p> <p>The positive impacts of green infrastructure on health and well-being, society, the environment and changing use of land will be highlighted in the second edition of the strategy later this year. This will also highlight the importance of a holistic approach to planning, and the relationship that exists between the strategy, Local Area Agreements and the Local Development Framework Process.</p>
Natural England's role	Working in partnership through membership of the steering group; providing advice, expertise and support and offering information and officer time.
What difference we are making	<p>Producing and sharing good quality information on effective delivery of green infrastructure in the Cambridgeshire.</p> <p>Raising level of understanding on benefits of a planned co-ordinated approach to green infrastructure amongst regional stakeholders, and highlighting positive achievements.</p> <p>We are also working with new/emerging green infrastructure partnerships in Kings Lynn, St Edmundsbury, Chelmsford and Herts to provide technical guidance and support on strategy preparation</p>

East Midlands

The East Midlands region has worked extensively with partners to support green infrastructure strategy development and implementation. The region has over ¼ million new homes planned across one growth area and five growth points and is actively engaged with them to develop appropriate green infrastructure strategies.

Our specialists work in partnership with the Regional Assembly to support the East Midlands Green Infrastructure Network (EMGIN) which helps local authorities, planners and home builders to produce and implement green infrastructure strategies.

The key challenge facing the region is to ensure green infrastructure strategies are owned by the local planning authorities and that the authorities, developers and local communities take these forward into delivery of green infrastructure.

Upton Sustainable Urban Drainage System (SUDS), - environmental services in an urban setting

This project showcases current best practise for sustainable urban drainage in the UK. Sited in Upton on what was once arable land to the south west of Northampton, this scheme is adjacent to the floodplain and the River Nene. Northampton has a long history of flooding, the last one occurred in 1998.



Natural England, English Partnerships, Northampton Borough Council and the Prince's Foundation held a master planning event in 2001, involving local residents, businesses and stakeholders, which showed how important dealing effectively with floodwater was to residents. Consulting engineers Pell Frischmann designed a scheme that captures storm water run-off from roofs and roads and channels the water through green spaces via a series of ponds and wetlands that connect to the Upton Country Park. Already the system has been colonised by a wide range of aquatic and wetland plants and animals.

Local residents can now experience a pedestrian-friendly urban design with access to green spaces and see the environmental benefit of a visible surface drainage system.

www.ciara.org/suds

- Engaging with all Growth Points within the region to support the development and implementation of green infrastructure in 3 cities (Derby / Nottingham / Leicester), Newark, Grantham, Lincoln and Gainsborough
- Working with partners to include green infrastructure planning and delivery on regional park initiatives in Charnwood and Sherwood
- Ongoing partnership with the River Nene Regional Park delivering green infrastructure for MKSN Growth Area
- Used concept statements as a vehicle to include green infrastructure – projects in Lincoln, Grantham, Newark, Wellingborough, Irthlingborough and Northampton
- Promoted the use of concept statements as a method of developing green infrastructure at East Midlands Expo 2007
- Hosted a green infrastructure event at a demonstration farm - East Midlands strategic green infrastructure delivery in the farmed landscape - attended by over 50 delegates from local authorities, planners and developers. Resulted in 6 requests for project support.

Environmental Character Assessment and Green Infrastructure Suite, Northamptonshire

- a toolkit for green infrastructure

Green Infrastructure has traditionally been designed and implemented in urban areas. Northamptonshire, a county covering 2360km² with less than half a million people is only four percent urban, yet it is expecting to face a major transformation as villages and towns expand exponentially, the shape of agriculture alters and the climate changes.

Funded by Natural England, Environmental Character Assessment (ECA) is a cutting-edge tool that has been created to describe the physical environment of Northamptonshire to help planners, developers and the community understand the landscape better. It is a comprehensive analysis of the region, encompassing green infrastructure, biodiversity and historical aspects of the area, which will help create clear guidelines to facilitate sustainable development.

The project initially began in Corby and was so successful it was upgraded to include a green infrastructure model and strategy for the entire county. For instance, interactive maps pinpoint rights of way, cycle paths, sites of historic interest and habitats, such as limestone woodland and minor floodplains. The ECA and green infrastructure process is based on adopting an holistic approach to secure environmental, social and economic benefits, which have been integral to the projects already delivered, such as Salcey Forest Canopy Walk and Stanwick lakes. Natural England has also provided support to the steering group overseeing the ECA as a whole and has also worked with the River Nene Regional Park to embed the ECA approach into policy and practice in the region. The system is available on an easy-to-use website as well as CD.

Principles behind the Environmental Character Assessment (ECA) and Green Infrastructure Suite

Existing and emerging landscape character assessments are essential to:

- Review local landscape designations
- Establish objective environmental base line data
- Identify natural and cultural assets
- Establish and define local landscape character
- Inform strategic environmental policy and the planning and development of growth areas
- Inform the development and management of green infrastructure networks as an integral part of new development
- Identify constraints and opportunities across the sub region
- Inform master planning to guide development at a more localised level
- Consider the potential for the restoration of disused and derelict sites that are unsuitable for development or have nature conservation or historic interest that should be conserved and properly managed

www.nnrpenvironmentalcharacter.org.uk

Other green infrastructure projects from the East Midlands

Development of the Regional Green Infrastructure Network	
Activity	To provide green infrastructure advice and produce a good practice guide ,and also run a series of training seminars for local authority planners on green infrastructure and its delivery within Local Development Frameworks.
Partners	The East Midlands Regional Assembly (EMRA) together with a range of other regional stakeholders .
What benefits are being secured	A new green infrastructure Guide for the East Midlands with 28 Case Studies was produced and launched at the first annual Regional green infrastructure conference in November 2008 run by EMGIN. 3 regional seminars run at 3 different locations on developing Strategic approach to green infrastructure.
Natural England's role	Providing support and offering information and officer time, working with EMRA on Strategic green infrastructure . Natural England ran a separate demonstration day on the benefits of developing a green infrastructure approach in a farmland setting at site south of Newark on 8 October 2008
What difference we are making	Producing and sharing good quality information on effective delivery of green infrastructure in the East Midlands . Raising level of understanding on benefits of a planned co-ordinated approach to green infrastructure amongst regional stakeholders, and highlighting positive achievements

West Midlands

Natural England and its partners in the West Midlands are challenged to proactively plan, deliver and manage green infrastructure, which creates a high quality environment for a vibrant, prosperous and sustainable region. With over 2 million people living and working in Birmingham and the Black Country there are many demands and opportunities for green infrastructure to support healthy and sustainable communities. In partnership with agencies such as the Forestry Commission, local authorities, strategic partnerships and the wildlife trusts we support green infrastructure and a range of benefits delivered from contact between people and nature to the protection, restoration and connection of natural habitats.

Sheepwash Park, West Midlands - a partnership for people and place

Sheepwash Park is a new nature reserve in Sandwell, the West Midlands. Its 39 hectares encompasses a large lake, river grasslands and recently planted woodlands. It's a haven for waders, waterfowl and rare plants such as snakeshead fritillary and the semi-parasitic yellow bartsia. The site was once a claypit and was then used for waste disposal before being reclaimed in the 1980s. Sheepwash is in one of the most deprived areas of England; it provides an attractive green space for up to 60,000 people who live within 2km of the reserve. As well as benefiting the residents by giving them access to a recreational space and supporting a range of wildlife, the lake also acts as a buffer during floods. The stakeholders include Sandwell Metropolitan Borough Council, Natural England, the Wildlife Trusts and Black Country Geodiversity Partnership, as well as several schools. The British Trust for Conservation Volunteers (BTCV) have undertaken to carry out restoration work within the park, which is being treated as part of a wider initiative, the Black Country Living Landscape (BCLL). BCLL is an initiative of The Wildlife Trust for Birmingham and the Black Country in partnership with organisations from the public, private and voluntary sectors including the Black Country local authorities, Natural England and the Black Country Geodiversity Partnership.

Natural England have been able to bring their expertise to the project group, providing technical advice and a financial contribution through the BCLL.

www.sandwell.gov.uk
www.bcll.org.uk

Other green infrastructure projects from the West Midlands

Stafford Master Plan	
Activity	To demonstrate the use of the planning technique 'concept statement' on the spatial planning of an area of growth and the incorporation of green infrastructure
Partner	Stafford Borough Council, Staffordshire County Council, Staffordshire Wildlife Trust, external consultant
What benefits are being secured	Development principles appropriate to deliver high quality green infrastructure for an area of growth.
Natural England's role	Membership of Project Steering Group, technical advice and financial contribution (£10,000)
What difference Natural England are making	Getting the Local Planning authority to consider green infrastructure as infrastructure and opportunity for community engagement.
Black Country Living Landscapes	
Activity	To demonstrate community involvement in green infrastructure planning on 'landmark' sites
Partners	The Wildlife Trust for Birmingham and Black Country; Black Country local authorities; Black Country Geological Society; range of public, private and voluntary organisations
What benefits are being secured	Site improvements for biodiversity, geodiversity, increased community engagement with the natural environment, opportunities for environmental educations, environmental tourism, volunteering A minimum of 250ha will be improved while 20 sites will be created
Natural England's role	Membership of project group, technical advice and financial contribution of £25,000.
What difference we are making	Delivery in local communities and wide agenda delivering benefits

Yorks and Humber

Working with local authorities and environmental organisations, Natural England has mapped existing greenspaces and green infrastructure across the Yorkshire and Humber Region. A mapped resource of strategic green infrastructure corridors and priority locations for future green infrastructure investment has been developed. The results of this work will inform regional, district and community strategies and provides evidence to support the consideration of green infrastructure issues in development and planning decisions. Further stages of the work will be to use this information to develop and deliver projects promoting access to the environment for health, demonstrating sustainable land management and responses to climate change close to where people live.

Dearne Valley, South Yorkshire

- putting down green routes

The Dearne Valley is in the heart of South Yorkshire, near the major towns of Rotherham, Barnsley and Doncaster. It follows the River Dearne from Swinton and Conisbrough in the south to Grimethorpe and South Kirby in the north. The area has suffered from the decline of coal mining, which ended in the 1980s, and since then has been both economically as well as environmentally impoverished. Natural England, the Environment Agency and the RSPB have put a programme into place to create green transport links throughout the valley, including cycle paths. Currently many of what were pit mining villages are isolated: these new routes will enable better communication and encourage local people to be more active, thus enhancing their health. Adwick Green Space is the first area that is currently being developed. The plan is to create a species-rich fen interspersed with small pools of deeper water on former agricultural land. This will attract wading birds and provide a suitable habitat for otter and water voles. Enhancing the green infrastructure will ultimately make the Dearne Valley a desirable place to live and attract further more sympathetic development.

Natural England commissioned an access audit for the Dearne Valley which identified the need for a green access hub which will cater for cyclists and walkers. We were also able to lever in £50,000 to upgrade and improve a stretch of path along a disused railway, linking 4 schools to Goldthorpe and the wider area, eventually becoming part of a wider green network.

North East

In the North East, there has been an emphasis on greenspaces that have multiple functions and providing social, economic and environmental benefits. The region has developed its own enhanced Access to Natural Greenspace Standards, driving connectivity between sites for the benefits of the community.

In 2006 the five Local Authorities in the Tees Valley started developing a green infrastructure strategy, with a strong focus on the economic benefits of green infrastructure development. Consequently, to date most completed projects of greenspace enhancement or creation funded by Natural England have focussed on the Tees Valley to inform the process there.

After the announcements of five New Growth Points, the region is now aiming to establish more exemplary green spaces in the other four Growth Points. Some of these are likely to be themed, for example, some will focus on adaptation to climate change.

West Park

- **exercise, education, art and the natural environment**

West Park is a highly accessible, partially wooded green space in urban fringe of Darlington. It has been created within the West Park development, a 49 hectare site between Cockerton and Faverdale. It was developed with the help of Natural England funding as part of the Spatial Planning and Multifunctionality (SPaM) project in 2005/06 and consequently delivered by a group of partners of which Natural England is one. Formally this area was a tip, the Darlington Chemical and Insulating (Darchem) works and farmland. The lead developer, Bussey and Armstrong, was keen to create a sustainable mixed use community suited to the local residents. So far the site features a new 12 hectares hill top parkland, which North East Community Land Services have been contracted to manage. They have planted 35,000 trees and created a number of wildflower meadows and ponds. The site is well connected to the local development, as well as to the wider area via a network of paths, including a disused railway line that Darlington Borough Council plan to extend. The council arranged a series of countryside events to encourage more regular use of the park for recreation and green exercise and the local primary school, Alderman Leach, which is adjacent to the main entrance, has used the park as an educational tool.

The site includes some innovative artwork, such as poetry by W N Herbert, which has been carved into functional and sculptural features. In October 2007 a new bike track was opened. It is based on the concept of 4X riding, which involves riding down a hill with jumps and banked corners. The Council's West Park bike track is supported by the North East Community Forests, Groundwork West Durham and Darlington and Hamsterley Trailblazers. The park exceeds Natural England's Accessible Natural Greenspace Standard (ANGSt) and the more rigorous ANGSt+ for connectivity to other areas. The development has won a Royal Institution of Chartered Surveyors Award.



Heaton Terrace, North East

- a tiny oasis of calm

The red-brick terraced streets of Heaton in Newcastle city centre were blocked off to prevent rat-running traffic, but now they are eye-sores in urgent need of environmental improvement. Natural England was able to influence Newcastle City Council to develop some innovative new ideas for the terraces, including planting spaces with edible and aromatic herbs. Groundwork, in conjunction with the council, has completed a sketch for one terrace that includes hard and soft landscaping and outdoor seating, which could be used by the local café, schools and the residents. The idea is that people will use the herbs to transform their meals; plants, such as lavender, will attract insects, like bees; these tiny oasis will act as a link to green spaces like the local park and make the area much more attractive. The design was inspired by the café, called Belle and Herbs, which employs people from Rehab UK, as well as those with mental health problems and learning difficulties. It's hoped that the local schools will provide an art feature. The short-term goal is to create original designs for each of these five terraces off Heaton Road and in the long-term to roll the blueprint out across the city and use it as a way of boosting the biodiversity and culinary potential of other derelict bits of land.

£12,000 of Natural England funding for this project was match funded by Newcastle City Council. As a result of Natural England's advice and advocacy, the council have been inspired to take a fresh approach to neglected space and to think beyond standard municipal planting and are planning to use the scheme as a model for other terrace ends..

- 18.4% of the region has CRoW access rights.
- Within the 10,370 km of rights of way, there are 4 National Trails covering 397km.
- In 2007/08 Natural England North East funded the development, enhancement or creation of seven green spaces with a total (projected) area of green space of 184 ha.
- There are five New Growth Points in the North East region, Durham, Tees Valley, Newcastle-Gateshead and South East Northumberland. The Tees Valley has already a published green infrastructure strategy (January 2008).

Other green infrastructure projects from the North East

St Lawrence Park, Newcastle	
Activity	To improve the quality of local park in a socially deprived area, with benefits for local people and biodiversity. Involving the local community in planning and implementation.
Partner	The local community, especially via local groups such as The Friends of St Lawrence Park. Groundwork is a delivery partner.
What benefits are being secured	Improved access and perceived safety for park users. Habitat improvements for biodiversity over 4ha. £8k input from Natural England £4k from Newcastle City Council Project management from Groundwork Practical work from local community. Significant additional funding is expected following the current stage of delivery.
Natural England's role	Catalyst funding for phase 1 of this project. Phase 2 & 3 will provide green exercise facilities and focus on the health benefits of open space.
What difference Natural England are making	Project would not have happened without Natural England input. Knowledge of health benefits enabling green exercise part of the project to get off the ground.
Brickies Pond, Stockton	
Activity	To provide habitat improvements for biodiversity. The brook is a strategic link as identified within Tees Valley green infrastructure strategy. Greater public access to area previously fenced and littered with 'keep out' signs.
Partners	Local groups, Stockton Borough Council, Tees Valley Wildlife Trust
What benefits are being secured	Improved access to pond and other footpath links. 4ha of habitat improvements for biodiversity and movement corridors to help with climate change adaptation. £10k input from Natural England. £31.5k input from other funders including Environment Agency, Stockton Borough Council and Groundwork. Opportunities for volunteers
Natural England's role	Bringing together a delivery partnership. Providing practical advice on site issues
What difference we are making	Bringing a bigger picture approach linking the functions and benefits of green infrastructure to enable a broader project scale including strategic links and wider community benefit.

North West

Green infrastructure (GI) is at the heart of the Natural Economy Northwest programme for embedding the natural environment within sustainable economic growth. This programme built on the green infrastructure work within the Northwest, by facilitating sub-regional green infrastructure strategies and promoting the green infrastructure approach within economic priority projects. Research on the economic benefits of green infrastructure demonstrates how green infrastructure contributes to Gross Value Added (GVA), creates the conditions for growth, increases economic security and delivers the critical ecosystem services. These economic benefits include economic growth and investment, labour productivity, tourism, health and wellbeing, quality of place, land and biodiversity, flood alleviation and climate change mitigation.

Natural Economy Northwest

- putting a value on the environment

Green Infrastructure is adding real value to the Northwest's economy. Natural Economy Northwest, a joint programme with Natural England and Northwest Regional Development Agency (NWDA), reports a direct gross value of £2.6 billion linked to Green Infrastructure. Environment-related jobs total 109,000 and other benefits include long-term employment, better health and climate amelioration.



Tourism in the Northwest is currently worth £10.9 billion a year and supports 200,000 full time jobs.

The Forestry Commission, the RSPB and the Lake District National Park Authority were able to attract a pair of ospreys to nest on the edge of Bassenthwaite Lake - They also attracted half a million visitors with a new bus service and two viewing centres dedicated to the birds of prey, providing 34 local jobs and £420,000 in income.

The benefits of green infrastructure, both rural and urban, include long-term employment, better health, more engaging education and social cohesion. Green infrastructure, reports show, should be central to economic and environmental policy.

Other benefits include climate change mitigation. It's been estimated that the Northwest's woodlands are worth £601 million in terms of their ability to store carbon and wetlands may have a similar capacity. Natural England, the RSPB and other organisations, are working to restore peatlands within Cumbria. The Solway Firth is one of the UK's important wetland sites and is home to rare wildlife, such as bog rosemary and all three British species of sundew. It's estimated that this work will generate an extra 17,000 visits to the South Solway Mosses nature reserve producing £117,000 for the local economy.

www.naturaleconomynorthwest.co.uk

Other green infrastructure projects from the North West

Weaver Valley Regional Park Green Infrastructure Plan, Cheshire	
Activity	To develop a green infrastructure plan for the Regional Park
Partner	Weaver Valley Partnership
What benefits are being secured	Example of use of green infrastructure planning in progressing the Strategic Framework for a Regional Park.
Natural England's role	Advisor
What difference are we making	Developing an innovative technical approach to green infrastructure planning that will pave the way for the implementation of the NW Green Infrastructure Guide.
River Dee Corridor Green Infrastructure Framework, NE Wales and West Cheshire	
Activity	To develop a Green Infrastructure Plan for the Dee Corridor.
Partners	Mersey Dee Alliance
What benefits are being secured	Project at feasibility stage.
Natural England's role	Advisor – steering group member
What difference we are making	Embedding the use of green infrastructure principles in the activity of the Mersey Dee Alliance – a regeneration partnership
Liverpool Knowledge Quarter Green Infrastructure Plan. Liverpool City Centre	
Activity	To influence the delivery of the Liverpool Knowledge Quarter Climax Plan to embed green infrastructure to aid the delivery of the plan objectives.
Partners	Liverpool Vision. Liverpool City Council. Mersey Forest
What benefits are being secured	Greater use of urban green infrastructure to deliver public realm improvements
Natural England's role	Advisor – steering group member.
What difference we are making	Exemplar project – the use of green infrastructure principles and planning in a public realm transformation context.

Irwell City Park Green Infrastructure Plan, Manchester, Salford and Trafford	
Activity	To use green infrastructure principles and planning to inform the long term delivery of a new river corridor based public realm and regeneration framework.
Partner	Salford Vision. Red Rose Forest.
What benefits are being secured	Retrofitting new green infrastructure into an inner urban regeneration area.
Natural England's role	Advisor – steering group member.
What difference are we making	Exemplar project – inner urban river corridor regeneration and green infrastructure retrofitting.
Economic Benefits of Green Infrastructure - Project Assessment Toolkit	
Activity	To develop a practical toolkit for RDAs, local authorities and others to aid the assessment of the economic benefits of green infrastructure projects.
Partners	Consortium project – North West Development Agency, One NE, Yorkshire Forward, Advantage West Midlands, Northern Way, Government Office North West, Environment Agency, Forestry Commission, Liverpool University, Cartas Jonas, Community Forests NW, Natural Economy Northwest.
What benefits are being secured	Improved ability of potential project funders to identify and assess the economic benefits of proposed green infrastructure projects. Natural England has made a £10,000 contribution to the £100K consortium fund.
Natural England's role	Funder, advisor, steering group member.
What difference we are making	Using our expertise in green infrastructure to enable improved ability of funders to support green infrastructure projects.
Rochdale Green Infrastructure Strategy	
Activity	To develop a district level green infrastructure Strategy
Partners	Rochdale Metropolitan Borough Council
What benefits are being secured	Development of an approach to translating regional green infrastructure Policy (RSS EM3) into district level (LDF) strategy for 'on the ground' delivery. Natural England has made a £10,000 contribution to £25K project
Natural England's role	Funder, advisor
What difference we are making	Working with a district council to develop a practical application of regional green infrastructure policy - piloted at township level.

Image credits

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