



Tees Valley Green Infrastructure Strategy

Enhancing the environment and achieving the
economic and sustainable vision





River Tees -
Ingleby Barwick

Contents

	Pages
Executive Summary	2 - 3
1. Introduction	4 - 7
2. Vision, Aims, Benefits and Key Principles	8 - 11
3. The Context and Framework for Green Infrastructure Planning	12 - 17
4. Tees Valley Development Context	18 - 23
5. Tees Valley Environmental Context	24 - 31
6. The Existing Green Infrastructure Resource	32 - 41
7. Towards a Strategic Green Infrastructure network	42 - 49
8. A Strategic Network of Green Infrastructure for the Tees Valley	50 - 57
9. Moving the Strategy Forward	58 - 60
Appendices	61 - 75
1. National, Regional and Sub-regional Policy Context	61 - 65
2. Existing/Inherited Strategic Green Infrastructure Strategies and Plans in the Tees Valley sub-region	66 - 71
3. Implementing Green Infrastructure	72 - 75
Bibliography	76 - 79

Executive Summary

What is Green Infrastructure?

Green infrastructure is:

- Green or open spaces that can link together to create an informal but planned network across a wide geographical area
- Parks, gardens, woodland, green corridors, wildlife sites, open spaces, watercourses, street trees, gardens and the open countryside
- Spaces that can perform a number of different functions - such as formal and informal recreation, nature conservation, food production enhanced settings for existing and new development, routes for walkways and cycle ways, areas for flood risk management, an education resource.

What is the vision for Green Infrastructure Tees Valley?

To develop by 2021 a network of green corridors and green spaces that:

- Enhances the quality of place for existing and future communities and potential investors;
- Provides an enhanced environmental context for new development, regeneration projects and housing market renewal, and produces high quality design and developments;
- Creates and extends opportunities for access, regeneration, and enhancement of biodiversity, and
- Provides a buffer against the effects of climate change.

How will the Tees Valley benefit from Green Infrastructure?

It will:

- Create an attractive environment which encourages people to stay and which increases the appeal for inward investors and entrepreneurs
- Be an essential ingredient in rebuilding its economy and creating sustainable and vibrant communities
- Enhance major development and regeneration schemes
- Create more opportunities for recreation
- Encourage more wildlife
- Promote better public health and create a sense of well-being
- Help to mitigate the effects of climate change

What will the Green Infrastructure network look like?

The Strategy proposes a network of green infrastructure corridors that link existing green infrastructure resources with strategic priorities such as major redevelopment schemes, housing market renewal areas, and areas of new housing and business development.

How will Green Infrastructure be implemented?

The Strategy will be implemented by local authorities and other key stakeholders. Often the most appropriate level for the promotion of actions will be through Local Development Frameworks and local green space or green infrastructure strategies. However actions and principles will also need to be embedded within economic regeneration and major development projects.

Partnership working will be important, particularly in securing funding. It is essential that key organisations co-ordinate efforts to attract funding over the long term to resource green infrastructure and deliver quality of place necessary to achieve the vision for economic growth and regeneration throughout the Tees Valley.

The next key stage is the preparation of an Implementation Plan that will:

- Summarise the principal existing and planned green infrastructure projects and initiatives;
- Identify gaps and new opportunities;

- Provide an indicative timetable for implementation;
- Identify potential funding sources, and
- Set out arrangements for monitoring progress and reviewing priorities.



Photo by Mike Kipling/The Tees Forest



Summerhill -Photo by Mike Kipling
for Hartlepool Borough Council

Introduction

- 1.1 Over the next 15 years or so the Tees Valley will implement an ambitious but realistic vision to rebuild its economy, attract new investment, and create sustainable and vibrant communities. A number of major regeneration schemes are planned or underway bringing major mixed-use developments that will transform the urban centres and provide new opportunities for living, working and spending leisure time.
- 1.2 One of the greatest challenges facing the Tees Valley in achieving this vision is to create attractive places and an environment that offers a quality of life that will encourage people to stay and will attract new investment and entrepreneurs. The core areas of the conurbation and main towns have experienced many years of urban flight and no longer offer an environment that meets the aspirations of residents and people looking to move into the Tees Valley.
- 1.3 Green infrastructure can play a key role in helping to achieve the economic and sustainable vision for the Tees Valley. The scale of development and regeneration envisaged requires a new way of looking at the environment, and in particular how new development and redevelopment can contribute to environmental quality. The concept of green infrastructure offers a way of achieving closer links between environmental improvement and the major development projects proposed in the Tees Valley. It can also provide an opportunity to adapt to climate change by influencing development and the use of land.

What is green infrastructure?

- 1.4 *Green infrastructure is defined as:*

"The physical environment within and between our cities, towns and villages. It is a network of multi-functional open spaces, including formal parks, gardens, woodlands, green corridors, waterways, street trees and open countryside. It comprises all environmental resources, and thus a green infrastructure approach also contributes towards sustainable resource management ¹."
- 1.5 Green infrastructure planning involves the provision of strategically planned networks that link existing (and proposed) green spaces with green corridors running through urban, suburban, urban fringe, and rural areas. Through the maintenance, enhancement and extension of these networks multi-functional benefits can be realised for local communities, businesses, visitors and the environment. Appropriate strategies, plans and programmes by local partnerships and individual organisations can help to maintain existing green infrastructure, and promote solutions to remedy deficiencies and create new opportunities.

¹ Green Infrastructure Planning Guide; Northumbria University, North East Community Forests, University of Newcastle upon Tyne, Countryside Agency, English Nature, Forestry Commission, Groundwork, 2005

What is so different about green infrastructure?

- 1.6 Many local authorities already manage open space and green space in a positive way for recreation, leisure, nature conservation or other uses, and protect such spaces from inappropriate development through policies in development plans and other strategies. However this has often been done very much at a local level and sometimes in an opportunistic way.
- 1.7 The green infrastructure concept offers a way of viewing open space provision as a resource that should be planned strategically and delivered in an integrated way across regions and sub-regions. It can therefore form an integral part of the investment plans and strategies of agencies with a remit for the planning and delivery of growth, sustainable development, and environmental management. Planning for green infrastructure at a strategic level also facilitates cross-boundary integration between local authorities, and will influence the preparation of the Regional Spatial Strategy, Local Development Frameworks, master plans, and site specific plans.
- 1.8 Development of the green infrastructure concept also comes at an opportune time in view of the Government's recent proposals for planning reform². Green infrastructure encompasses many cross-cutting issues that will help to deliver high quality development in a high quality environment. It will also help to safeguard and deliver landscape and townscape character and distinctiveness, biodiversity, water and coastal

considerations, health, recreation, climate change adaptation and mitigation, and other land use and spatial elements. The new planning system provides the opportunity to deliver green infrastructure that will provide benefits far beyond the just allocation and provision of open space.

Green infrastructure, regeneration and economic growth

- 1.9 Environmental quality and quality of place are increasingly seen as playing an important role in improving economic performance and urban competitiveness. The recent government 'State of the English Cities' research study defined urban competitiveness as:

*"the ability of cities to continually upgrade their business environment, skill bases and physical, social and cultural infrastructure, so as to attract and retain high-growth, innovative and profitable firms, and an educated, creative and entrepreneurial workforce, thereby enabling them to achieve a high rate of productivity, high employment rate, high wages, high GDP per capita, and low levels of income inequality and social exclusion."*³
- 1.10 The study also addresses the issue of 'liveability' which it considers to be essentially about creating places where people choose to live and work, and therefore a key competitive element between cities in terms of attracting both people and businesses:

² Planning for a Sustainable Future - White Paper, HM Government, Cm 7120, May 2007

³ State of the English Cities: A Research Study; Office of the Deputy Prime Minister, March 2006

"Evidence from the core cities in the UK highlighted that the mixture of ingredients that improve quality of life and make a sustainable community with assets of good environment, distinctive architecture and cultural facilities, diverse housing stock and access to natural amenities are an essential mix to the right kind of labour force to make a city economically competitive."⁴

- 1.11 A recent report by the Northern Way⁵ demonstrates that the quality of the residential offer in the North is about more than homes - it is also about their environs. The report states that the North's urban open space is often of poor quality and compares unfavourably with the region's countryside. Provision of green infrastructure is often patchy, because too often it is delivered in a piecemeal way.
- 1.12 The Northern Way report notes that a more strategic approach would add real value by providing a properly planned network of green infrastructure, and considers that city-region partnerships and local authorities are ideally placed to strategically plan green infrastructure, integrating it with plans to raise quality of place.
- 1.13 The consultation draft North East Strategy for the Environment (NESE)⁶ recognises the importance of developing and improving the region's environmental infrastructure, and considers that sustaining environmental infrastructure is essential to economic and social well-being. NESE notes that environmental infrastructure forms the basis for green infrastructure which is essential for

delivering quality of place, contributing towards healthy, safe, sustainable communities to help attract and retain businesses and skilled people within the region.

- 1.14 Strategic development of green infrastructure will also contribute towards the Tees Valley's urban and rural tourism offer, enhancing the area's overall image as an attractive destination. Specific benefits might include the development of nature-based tourism and activity-based tourism utilising an enhanced network of high quality green routes.
- 1.15 Regenerating the economy and creating sustainable communities is not only at the heart of the vision for Tees Valley, but also critical to the success of the Northern Way initiative. Green infrastructure can clearly play a major role in improving economic success, and it is essential that resources are made available to do this. Just as growing communities need to upgrade and expand 'grey infrastructure' (roads, sewers, utilities and so on), there is a need to invest in green infrastructure to deliver benefits for the environment and enhance quality of life for all.



⁴ State of the English Cities: A Research Study; Office of the Deputy Prime Minister, March 2006

⁵ Shaping the North's cities for growth: an agenda for the next decade; The Northern Way/One NorthEast, 2007

⁶ North East Strategy for the Environment - consultation draft; North East Environment Forum, December 2006



Billingham Beck - Stockton-on-Tees
Photo by Stockton-on-Tees Media Store

Vision, Aims, Benefits and Key Principles

2.1 The **vision** for green infrastructure in the Tees Valley is:

To develop by 2021 a network of green corridors and green spaces in the Tees Valley that:

- Enhances the quality of place and environment for existing and future communities and potential investors;
- Provides an enhanced environmental setting and context for new development, regeneration projects, and housing market renewal initiatives and produces schemes of high quality design;
- Creates and extends opportunities for access, recreation and enhancement of biodiversity, and
- Provides a buffer against the effects of climate change.

2.2 The vision seeks to ensure that environmental quality and improvement is given a high priority within the aim of regenerating the economy of the Tees Valley and creating sustainable communities.

2.3 There are 6 principal **aims** of the Green Infrastructure Strategy:

- A1** Provide a strategic context for the sustainable planning and management of existing and proposed green space within the Tees Valley
- A2** Support and reinforce initiatives and strategies designed to raise the economic performance of the Tees Valley, promote economic and social inclusion, create sustainable communities, and improve the environment

A3 Assist with climate change adaptations, actions and initiatives

A4 Provide a framework of high quality green corridors and spaces that will help to improve access to open space for local communities and contribute to tackling such issues as poor health and quality of life

A5 Provide an enhanced environmental context for new development and regeneration schemes

A6 Improve access to resources through major funding regimes and improve the case for green infrastructure to be funded as a primary public investment on a similar basis to other services and infrastructure

2.4 A well-planned and integrated green infrastructure network will provide a number of significant **benefits** for the Tees Valley:

B1 An enhanced image and environmental setting that will promote the sub-region as a high quality place to live, work, invest and visit

B2 Promoting a sense of community and place

B3 Maintaining and enhancing biodiversity (including the creation of new habitats) and helping to reverse habitat fragmentation by improving the links between sites, contributing to the delivery of the Tees Valley Biodiversity Action Plan and helping to cope with the effects of climate change through the creation of new and/or compensatory habitats

- B4** Providing better opportunities for exercise, sport, active recreation and consequently improved health; also contributing to the health and well-being benefits of tranquillity and absence of noise, air and light pollution
 - B5** Improving opportunities to recreate or rehabilitate landscapes, open spaces, historic sites, and habitats damaged or lost through development or other changes
 - B6** Opportunities for greater community involvement
 - B7** Encouraging good design and high quality developments
 - B8** Providing enhanced opportunities to connect new communities with existing neighbourhoods
 - B9** Contributing to environmental sustainability and climate change adaptation through opportunities for improved flood-risk management, air and water quality
 - B10** Enhancing the Tees Valley's 'nature-based' and 'activity-based' tourism offer
- 2.5 The Green Infrastructure Strategy has been prepared to raise the profile of the 'green' agenda and ensure that action is taken at a strategic level to meet and provide the aims and benefits. It will increase the profile of greening in the Tees Valley and provide a context for other plans, strategies and programmes such as the City Region Development Programme, Local Development Frameworks, the Tees Forest Plan, Local Biodiversity Action Plans, and local open space strategies.

2.6 The Strategy will also provide the Tees Valley local authorities with the vision and structure required to direct the development of individual bids and projects to deliver the component parts of the green infrastructure network over the next 10 to 15 years.

2.7 Although the green infrastructure network is based on an analysis and understanding of existing assets and potential opportunities, it is principally intended as a conceptual framework to aid the delivery of green infrastructure on the ground. Implementation of the Green Infrastructure Strategy and network will be achieved by a number of different organisations and stakeholders. The network actually delivered may vary over time depending on local issues such as the requirements and aspirations of local communities and detailed issues such as land ownership.

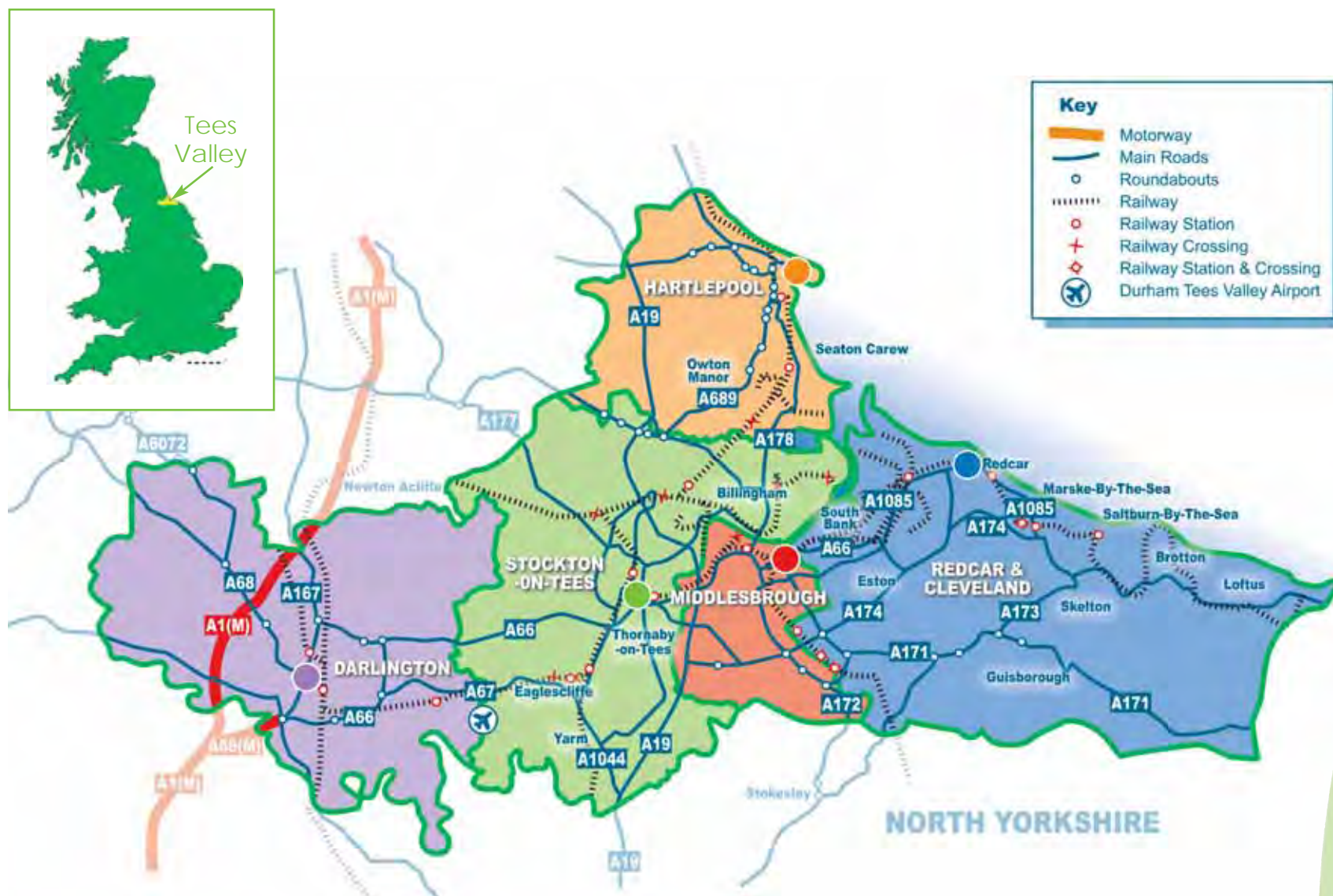
2.8 It will be important to establish a set of overarching planning and delivery principles to guide green infrastructure provision throughout the Tees Valley sub-region. Green infrastructure principles can be applied:

holistically - on urban and rural land, public and private land, large and small sites, temporary and permanent uses, linked to connectivity;

at different **scales** - regional, sub-regional, district, neighbourhood (see also paragraph 6.4);

multi-functionally - providing a number of benefits and services, often at the same time.

Tees Valley in UK Context





Albert Park - Middlesbrough
Photo by Tees Valley Joint Strategy Unit

The Context and Framework for Green Infrastructure Planning

- 3.1 The development of green infrastructure is supported through a number strategies, policy and guidance documents which provide a national, regional and sub-regional context for planning and implementation. Some of the most relevant are summarised in this section, and more detail is provided in appendix 1. Figure 1 shows how the Tees Valley Green Infrastructure Strategy fits into the national, sub-regional and local policy framework.

National Context

- 3.2 There is much in the current planning regime that supports the development and implementation of green infrastructure. The requirement for a 'Design and Access Statement' introduced in August 2006 as part of the Planning and Compulsory Purchase Act 2004 will provide an opportunity for the principles of green infrastructure to be incorporated right at the start of the planning process for new developments and major projects. The recent Planning White Paper: Planning for a Sustainable Future⁷ stresses the importance of protecting parks and urban green spaces. It goes on to state:

"These places make a huge contribution to the quality of life, as well as, through encouraging activity and sport, providing potential health benefits. That is why we want to see new development which positively shapes our open spaces, public parks, and sports or other recreation facilities.....Open green spaces are essential both in towns and cities, as well as in the

countryside, to meet the diverse needs and general well being of local communities. Development which has the potential to enhance the surrounding area through good design, as well as improving community access to open green space or to providing additional recreational facilities is to be welcomed."

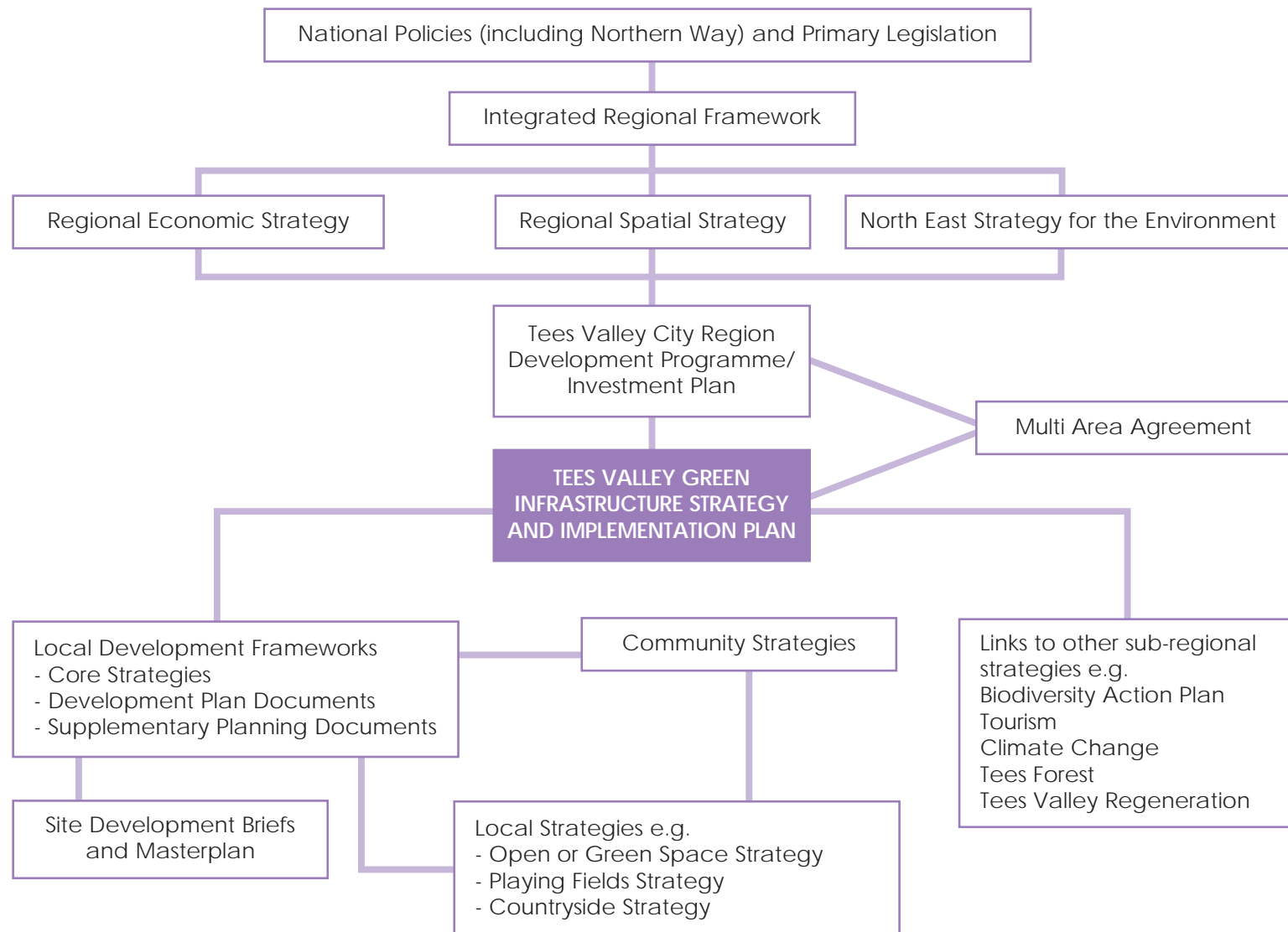
- 3.3 The recent Housing Green Paper⁸ sets out how the Government is going to meet the challenge of providing more houses. Within the Green Paper are proposals for eco-town schemes and a new round of Growth Points, including for the first time the North. The Paper emphasises the important role of green spaces within the context of providing more homes and states "A core element of creating sustainable communities is the provision of good quality parks and open spaces which provide environmental functions such as water management and biodiversity, as well as access to the benefits of the natural environment." The provision of more green spaces will be a key component in plans for the New Growth Points programme.



⁷ Planning for a Sustainable Future - White Paper; HM Government, Cm 7120, May 2007

⁸ Homes for the future: more affordable, more sustainable; Department for Communities and Local Government, Cm 7191, July 2007

Green Infrastructure Strategy - Strategic Framework (Figure 1)



- 3.4 Recent guidance by DEFRA⁹ specifically refers to the importance of incorporating green infrastructure into development plans to help deliver many of the social, economic and environmental benefits required for sustainable communities.
- 3.5 Planning Policy Statement (PPS) 1 'Delivering Sustainable Development'¹⁰ recognises that the condition of our surroundings has a direct impact on the quality of life, and that the improvement of the natural and built environment brings social and economic benefit for local communities. Complementing PPS1 and other PPS/PPG's 'By Design - Urban design in the planning system'¹¹ sets out ways in which better design should be encouraged if better places are to be created.
- 3.6 PPS9 'Biodiversity and Geological Conservation'¹² highlights the role that networks of habitats can play in linking sites of biodiversity importance, and states that such networks should be protected from development, ideally as part of a wider strategy for the protection and extension of open space. PPS9 also highlights the role of previously developed land to host locally important biodiversity, and the importance of retaining or incorporating such interest into developments. It also notes the opportunities for building-in biodiversity features as part of the design of development proposals.
- 3.7 PPG17 'Planning for Open Space, Sport and Recreation'¹³ advises local authorities to carry out assessments of existing and future requirements for open space and recreational facilities. PPG17 also advises that local authorities should undertake an audit of quality, quantity and accessibility of open space. PPG17 also recognises the role of open spaces in enhancing quality of life, and in particular the role of local networks of high quality and well managed open spaces in creating attractive urban environments.
- 3.8 Before being incorporated into Natural England the former Countryside Agency issued a number of publications supporting the important role of green infrastructure. In particular both 'The Countryside in and around towns'¹⁴ and 'Delivering a new urban fringe'¹⁵ explained the importance of urban parks, country parks and other green spaces being joined up to form continuous green corridors between town and country.

⁹ Guidance for Local Authorities on Implementing the Biodiversity Duty; Department for Environment, Food and Rural Affairs, May 2007

¹⁰ Planning Policy Statement 1: Delivering Sustainable Development, Office of the Deputy Prime Minister, February 2005

¹¹ By Design - Urban design in the planning system: towards better practice; Department for Environment, Transport and the Regions/Commission for Architecture and the Built Environment, March 2000

¹² Planning Policy Statement 9: Biodiversity and Geological Conservation, Office of the Deputy Prime Minister, August 2005

¹³ Planning Policy Guidance Note 17: Planning for Open Space, Sport and Recreation, Office of the Deputy Prime Minister, July 2002

¹⁴ The countryside in and around towns; Countryside Agency/Groundwork, 2005

¹⁵ Delivering a New Urban Fringe: Bringing life back into the landscapes around our towns and cities; Countryside Agency/English Nature/Rural Development Service, April 2006

Regional Context

- 3.9 Raising the quality of places is firmly embedded as a key element within the Northern Way's Growth Strategy¹⁶ to achieve economic success. Its recently published 'Agenda for the Next Decade'¹⁷ stresses the role of green infrastructure in improving the North's residential offer. It notes that urban open space is often of poor quality when compared with the North's countryside. Green infrastructure is often patchy because it is delivered in a piecemeal way. The report states that a more strategic approach would add real value, by providing a properly planned network of green infrastructure. The report also considers that city region partnerships and local authorities are ideally placed to strategically plan green infrastructure, integrating it with their plans to raise quality of place. Further detail on the importance of green infrastructure to city regions can be found in a report produced for the Northern Way - 'City Region Green Infrastructure Planning'¹⁸.
- 3.10 The Regional Economic Strategy¹⁹ recognises the priority that must be given to providing high quality natural, heritage and cultural environments that will help to retain, attract and develop skilled workers, entrepreneurs, graduates and visitors. The Strategy notes the role of green infrastructure as a key component of sustainable communities, and the need to maximise the benefits of green infrastructure through sound planning and management.

- 3.11 The revised Regional Spatial Strategy (RSS) for the North East will set out the spatial strategy and priorities for growth in the Tees Valley City Region, including a high priority to improving the environment. Following an Examination in Public into the RSS in 2006, the Report of the Panel recommended that greater emphasis be given to supporting the establishment of strategic networks of green infrastructure. This has been reflected in the Secretary of State's Proposed Changes to the RSS where policy 2 on sustainable development states:

"Planning proposals and Local Development Frameworks should support sustainable construction and sustainable development through the delivery of the following environmental, social and economic objectives [including]:

- *To make better use of our resources, including the built fabric*
 - *To mitigate environmental and social costs of developments, and encourage efficient resource use*
 - *To promote the concept of green infrastructure, a network of linked, multifunctional green space in and around the Region's towns and cities."*
- 3.12 Significantly the Proposed Changes include a reference to green infrastructure within the spatial policy for the Tees Valley City Region (policy 7: 7.6a) as follows;

¹⁶ Moving Forward: The Northern Way - Business Plan 2005-2008, Northern Way Steering Group, June 2005

¹⁷ Shaping the North's cities for growth: an agenda for the next decade; The Northern Way/One NorthEast, 2007

¹⁸ City Region Green Infrastructure Strategic Planning: Raising the Quality of the North's City Regions; produced by ECOTEC for the Northern Way, October 2006

¹⁹ Regional Economic Strategy: Leading the Way, One NorthEast 2006

²⁰ North East of England Regional Spatial Strategy: the Secretary of State's Proposed Changes to the draft revision submitted by the North East Assembly; Government Office for the North East, May 2007

"Strategies, plans and programmes, and planning proposals, should support the polycentric development and redevelopment of the Tees Valley City Region by:

- *Supporting the establishment of strategic networks of green infrastructure, including green wedges, that link existing and proposed green space with green corridors running through urban, suburban and urban fringe areas to the countryside and coast."*

Sub-Regional Context

- 3.13 The Tees Valley Structure Plan²¹ provides a strategic context for future growth and development of the sub-region, and includes policies for the protection and enhancement of the environment. The Structure Plan recognises the importance of securing improvements to the quality of the environment for the benefit of people who live and work in the area, as well as helping to attract visitors and investors. Relevant policies include the provision of green wedges and strategic gaps, wildlife corridors and greenways. (NB. The Tees Valley Structure Plan will be replaced by the revised Regional Spatial Strategy for the North East when the latter is approved by the Secretary of State, probably early in 2008).

- 3.14 It should be noted that the part of the North York Moors National Park within Redcar and Cleveland Borough is covered by the Regional Spatial Strategy for Yorkshire and the Humber, and the submission draft RSS²² endorses and supports the concept and development of green infrastructure.

- 3.15 The Tees Valley City Region Business Case²³ and its accompanying Investment Plan²⁴ both recognise that unless the legacy of a poor environment and poor public realm is addressed to create good quality of place, it will be difficult to attract investment and retain people. Both also acknowledge that a strategic open space network is a vital part of improving liveability and the urban competitiveness of the Tees Valley.

- 3.16 The Tees Valley local authorities and other key partners have submitted a bid²⁵ outlining the case for the Tees Valley to be identified as one of the Government's New Growth Points (see also paragraph 3.3). The bid recognises that green infrastructure must be an integral part of the process and must be created alongside new residential and commercial development.

- 3.17 A more comprehensive list of current/inherited plans, strategies and policies in the Tees Valley, together with an indication of how they link to green infrastructure planning, is provided in appendix 2

²¹ Tees Valley Structure Plan; Tees Valley Joint Strategy Unit on behalf of the Borough Councils of Darlington, Hartlepool, Middlesbrough, Redcar & Cleveland, and Stockton-on-Tees, adopted February 2004

²² Regional Spatial Strategy: The Yorkshire and Humber Plan; Yorkshire and Humber Assembly, Draft for Consultation, December 2005

²³ Tees Valley City Region: A Business Case for Delivery, Tees Valley Joint Strategy Unit on behalf of the Borough Councils of Darlington, Hartlepool, Middlesbrough, Redcar & Cleveland, and Stockton-on-Tees, 2006

²⁴ An Investment Plan for the Tees Valley City Region; Shared Intelligence, September 2006

²⁵ Tees Valley Growth Point Proposal: Why Tees Valley, Why Now? Darlington, Hartlepool, Middlesbrough, Redcar & Cleveland, and Stockton-on-Tees Borough Councils, Tees Valley Living, Tees Valley Regeneration, Tees Valley Joint Strategy Unit, November 2007



West Park - Hartlepool
Photo by James Cianciaruso

Tees Valley Development Context

- 4.1 The Northern Way initiative²⁶ sets out a vision of how the prosperity gap between the North and the South can be closed. Going hand-in-hand with the creation of a strong economy is the development of a superb quality of life that offers a wide choice of communities that are desirable places to live and raises the quality of places. High quality of place will support the economic and social goals of the Northern Way through providing the physical infrastructure needed to attract and support businesses, attract and retain skilled, creative individuals, and boost competitive advantage in terms of quality of place and environment.
- 4.2 Implementation of the Northern Way strategy will be achieved principally through the concept of City Regions and City Region Development Plans, supported by various regional strategies, especially the Regional Economic Strategy and Regional Spatial Strategy.
- 4.3 Quality of place, quality of life and the well-being of communities have become central to regional and sub-regional competitiveness and relocation and investment decisions. The Regional Economic Strategy recognises that the region's green spaces are a vital asset, particularly in the context of increasing development pressures, and that green infrastructure is increasingly acknowledged as being a key component of sustainable communities.
- 4.4 Over the next 15 years the Tees Valley will undergo considerable change and growth. The whole economic performance of the sub-region will be improved by:
- Building a strong diversified economy based on the chemicals, hydrogen economy, renewable energy, and steel sectors; a world-class port at Teesport; a knowledge based economy centred on the universities; and the development of Durham Tees Valley Airport as a major employment location;
 - Developing sustainable communities based on the creation of attractive places and an environment with a quality of life that retains people and attracts entrepreneurs; regeneration of the inner areas of the main towns into vibrant, socially diverse communities; creation of a revitalised housing market, and an expanded business and financial services sector, and
 - Developing high quality public transport to improve access to locations for economic growth from both urban and rural areas.
- 4.5 The mechanisms showing how the Tees Valley can transform its economic performance and improve the quality of life for its people are set out in the Tees Valley City Region Development Programme (CRDP)²⁷.
- 4.6 The Tees Valley CRDP sets out 5 key priorities, all of which can be enhanced by a strategic green infrastructure network:
- Creating an environment to develop the financial and business services sector, knowledge based industry, the growth of tourism, and diversifying the economy;

²⁶ Moving Forward: The Northern Way - Business Plan 2005-2008, Northern Way Steering Group, June 2005

²⁷ Tees Valley City Region: A Business Case for Delivery, Tees Valley Joint Strategy Unit on behalf of the Borough Councils of Darlington, Hartlepool, Middlesbrough, Redcar & Cleveland, and Stockton-on-Tees, 2006

- Providing jobs close to areas of deprivation;
- Creating attractive places which offer a wide range of leisure, cultural, shopping and learning opportunities;
- Providing greater housing choice in the centres of the Tees Valley communities, and
- Improving the quality of the built environment.

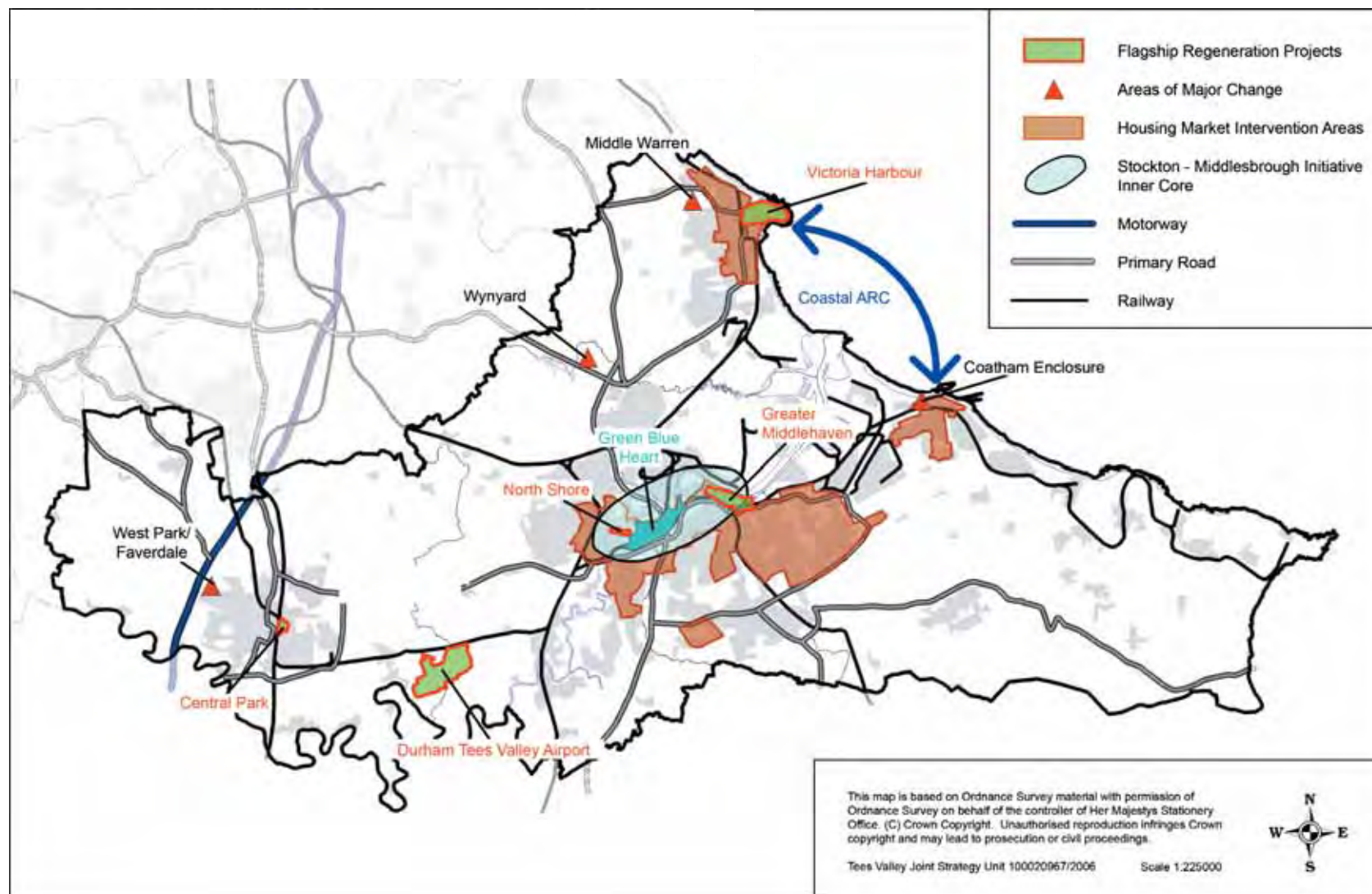
4.7 The CRDP identifies three spatial priorities (within the Tees Valley sub-region) where growth and regeneration will be focussed:

- **The Stockton Middlesbrough Initiative** (SMI) focussing on the land on both banks of the River Tees between Stockton town centre and Middlesbrough town centre. Major schemes and projects include:
 - Greater Middlehaven, a major mixed-use brownfield re-development of former dockland and surrounding area alongside the River Tees close to Middlesbrough town centre;
 - North Shore, a mixed-use brownfield River Tees waterfront re-development close to Stockton town centre;
 - further expansion of the financial and business services sectors at Teesdale, across the River Tees from North Shore;
 - expansion of cultural, retail and leisure opportunities in Middlesbrough town centre;

- further development of the University of Teesside in Middlesbrough town centre, and the University of Durham (Queens Campus) at Teesdale, as well as the relocation of Middlesbrough College to Middlehaven;
- high quality housing (both apartments and family housing) in both Stockton and Middlesbrough town centres and along the River Tees corridor;
- creation of a Green-Blue Heart, a 21st century landscape providing a new and attractive setting for development, and
- further leisure and recreation opportunities at the Tees Barrage in conjunction with the Green-Blue Heart.

- **Darlington Gateway**, which aims to build on Darlington's locational advantages to attract new employment. The Central Park scheme will see a major mixed-use redevelopment of former railway and adjacent uses alongside Darlington town centre, while other projects will provide for office development at Morton Palms Business Park and Darlington Great Park; accommodation for the logistics and distribution sectors at Faverdale; and expansion of retail facilities in Darlington town centre.

Map 1: Regeneration Projects and Areas of Major Change



- **Coastal Arc**, which will develop assets offered by a coastal location. Major elements include:

- the Hartlepool Quays concept which acts as a strategic driver to creating a critical mass of facilities and attractions. It links together existing and emerging developments, improving Hartlepool's profile as a place to live and work. It comprises the Marina, town centre, historic Headland and Victoria Harbour;
- Victoria Harbour will see major re-development of surplus port land close to the town centre, creating new visitor and leisure attractions, and providing new retail, commercial and residential opportunities. A major open space concept, known as the "Wave", is to be developed within the Victoria Harbour scheme;
- a comprehensive programme to improve Seaton Carew's visitor offer;
- the Headland Revival programme to upgrade access and enhance key visitor attractions;
- development of an education/skills quarter in Hartlepool;
- further development of business opportunities and facilities in Hartlepool's Southern Industrial Zone;
- the Coatham Enclosure Project will help to improve the tourism potential of Redcar and provide new housing opportunities;

- improved shopping and seafront experience at Redcar;
- improved attractions at Saltburn, and
- opening up and marketing of the industrial heritage of East Cleveland and its countryside

4.8 Additionally Durham Tees Valley Airport will see further growth and expansion of facilities, together with new employment uses on adjacent land.

4.9 In addition to the major regeneration and development proposals outlined above, other major committed development will be continuing over the next few years, including:

- Completion of development at Ingleby Barwick, a major housing scheme between Thornaby and Yarm ultimately providing some 8,700 dwellings;
- Major housing development at Middle Warren in north west Hartlepool where some 2,250 dwellings will be complete by 2016;
- Significant new housing developments at Redcar, Skelton, and Darlington West Park, and
- Several major business developments or regeneration projects, including Wynyard, Hartlepool Queens Meadow, and Kirkleatham village and estate.

- 4.10 Parts of the Tees Valley sub-region are affected by poor quality and low demand housing. This has come about through a combination of several factors including economic re-structuring leading to heavy out-migration, rapid industrialisation in the 19th century produced masses of high density, minimum standard terraced housing, and urban flight - movement of people to more modern, better quality houses outside and on the edges of the urban areas. To address these problems, Tees Valley Living was established to prepare a strategy for housing market renewal.
- 4.11 One of the characteristics of low demand housing areas is a poor environment and is one of the reasons behind urban flight, - people moving to houses with gardens, more open space and better access to the countryside. The Tees Valley housing market renewal strategy recognises the priority that must be given to providing good quality housing with gardens and parking, and an attractive environment, to create viable and sustainable communities. It is important to take a strategic approach. Simply demolishing housing and grassing over the gaps will result in non-functional green spaces that are expensive to maintain, attract anti-social behaviour, and physically isolate any significant buildings and structures that remain. The green infrastructure strategy will assist in the implementation of the housing market renewal strategy by providing an enhanced environment for both new and improved housing schemes.





Rossmere Park - Hartlepool
Photo by James Cianciaruso

Tees Valley Environmental Context

Landscape Character

- 5.1 The Tees Valley sub-region contains several distinctive landscapes, including part of a National Park (North York Moors) and part of a Heritage Coast (North Yorkshire and Cleveland). The Durham Heritage Coast adjoins Hartlepool and extends north towards Seaham and Sunderland, and may be extended south into Hartlepool in the longer term.
- 5.2 Most of the Tees Valley is within the 'Tees Lowlands' Countryside Character area, as defined by the Countryside Agency (now part of Natural England)²⁸. The key characteristics of the Tees Lowlands are:
- A broad low lying plain of gently undulating, predominantly arable farmland, with some pasture, and wide views to distant hills;
 - Meandering, slow moving River Tees flows through the heart of the area, dividing the lowlands to north and south;
 - Contrast of quiet rural areas with extensive urban and industrial development, concentrated along the lower reaches of the River Tees, the estuary and coast;
 - Large scale chemical and oil refining works, dock facilities and other heavy plants along the Tees estuary form a distinctive skyline both day and night;
 - Overhead transmission lines and pylons, major road corridors, railway lines and other infrastructure elements are widespread features;

- Woodland cover is generally sparse, but with local variations such as the steep banks of the middle reaches of the River Tees, and parkland and managed estates;
- Distinctive areas of peaty fenland flats and cars within the River Skerne lowlands, and extensive areas of mud flats, saltmarsh, wetlands and dunes at the mouth of the River Tees, which support valuable wildlife habitats, and
- Minor valleys and linear strips of open land extend as 'green wedges' from rural farmland into the heart of the Teesside conurbation.

5.3 To the north of the Tees Lowlands is the Durham Magnesian Limestone Plateau, which extends into the Tees Valley sub-region in the northern parts of Darlington and Hartlepool districts. This is a gently undulating low upland plateau of open, mostly arable, farmland dipping south and east, with incised denes cut into the coastal edges.

5.4 To the south east of the Tees Lowlands lie the North York Moors and Cleveland Hills, an upland plateau landscape dominated by heather moorland, with a series of dales and steep sided river valleys, and a dramatic landscape of high cliffs and small bays.



²⁸ Countryside Character Vol.1: North East, CCP535, Natural England

- 5.5 A very small part of the Durham Coalfield Pennine Fringe countryside character area extends into the extreme north west part of Darlington district.

Natural Areas and Biodiversity

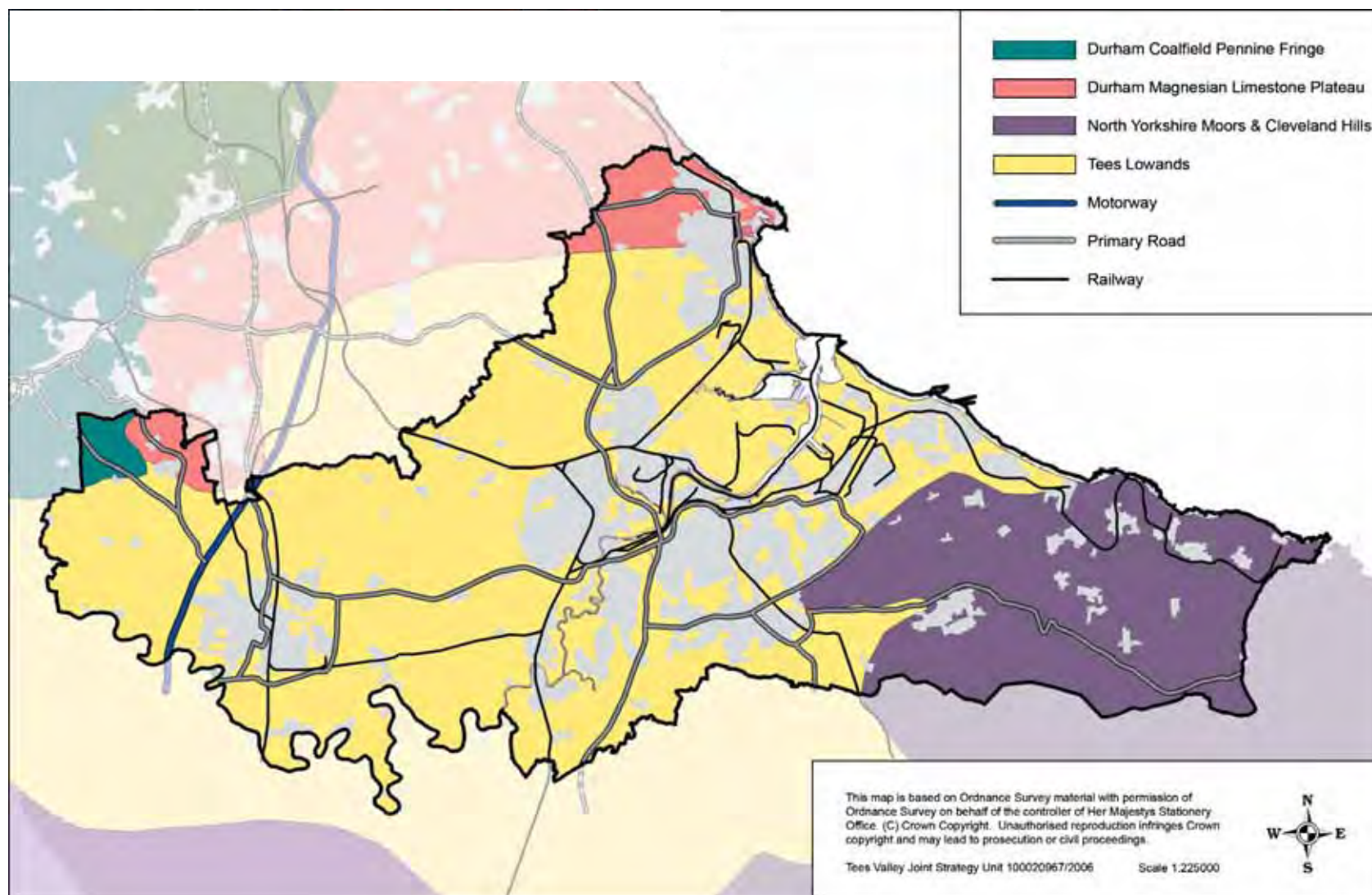
- 5.6 Natural England's Natural Area²⁹ boundaries largely coincide with those of the Countryside Character areas. The Tees Lowlands Natural Area comprises the low-lying land adjacent to the estuary of the River Tees. There has been considerable land reclamation for industrial development in and around the Tees estuary, but remnants remain of grazing marsh, open water and wetlands. In addition to the losses to industry, larger areas of the lower Tees are densely built up with the associated problem of habitat loss and alteration to natural systems. The land rises to the south to meet the North York Moors at an abrupt escarpment that is characterised by mixed woodland on its face and steep sided gill woodlands. To the north and west of the Tees Lowlands the land rises gradually onto the Magnesian Limestone ridge which contains areas of limestone grassland and quarries which are nationally important for their geological interest.
- 5.7 The Tees Estuary and associated Cleveland Coast is of international importance for wintering and migratory birds, and comprises intertidal sand and mudflats, rocky shore, salt marsh, freshwater marsh, and sand dunes. It has been designated as a Special Protection Area (SPA) under the EC Birds Directive and qualifies as a Ramsar site (a wetland of international importance).

All the component parts are given statutory recognition as Sites of Special Scientific Interest (SSSI) and part is designated as a National Nature Reserve. It is also relevant to note the potential of Saltholme International Nature Reserve within the context of the Tees Estuary. Currently being developed by the RSPB and Teesside Environmental Trust, Saltholme will be the largest wildlife visitor facility in the Tees Valley and could contribute £1.4m to the local economy. It will deliver significant improvements to the quality of life for local residents, and will show social and economic, as well as environmental, advantages of high quality green infrastructure.

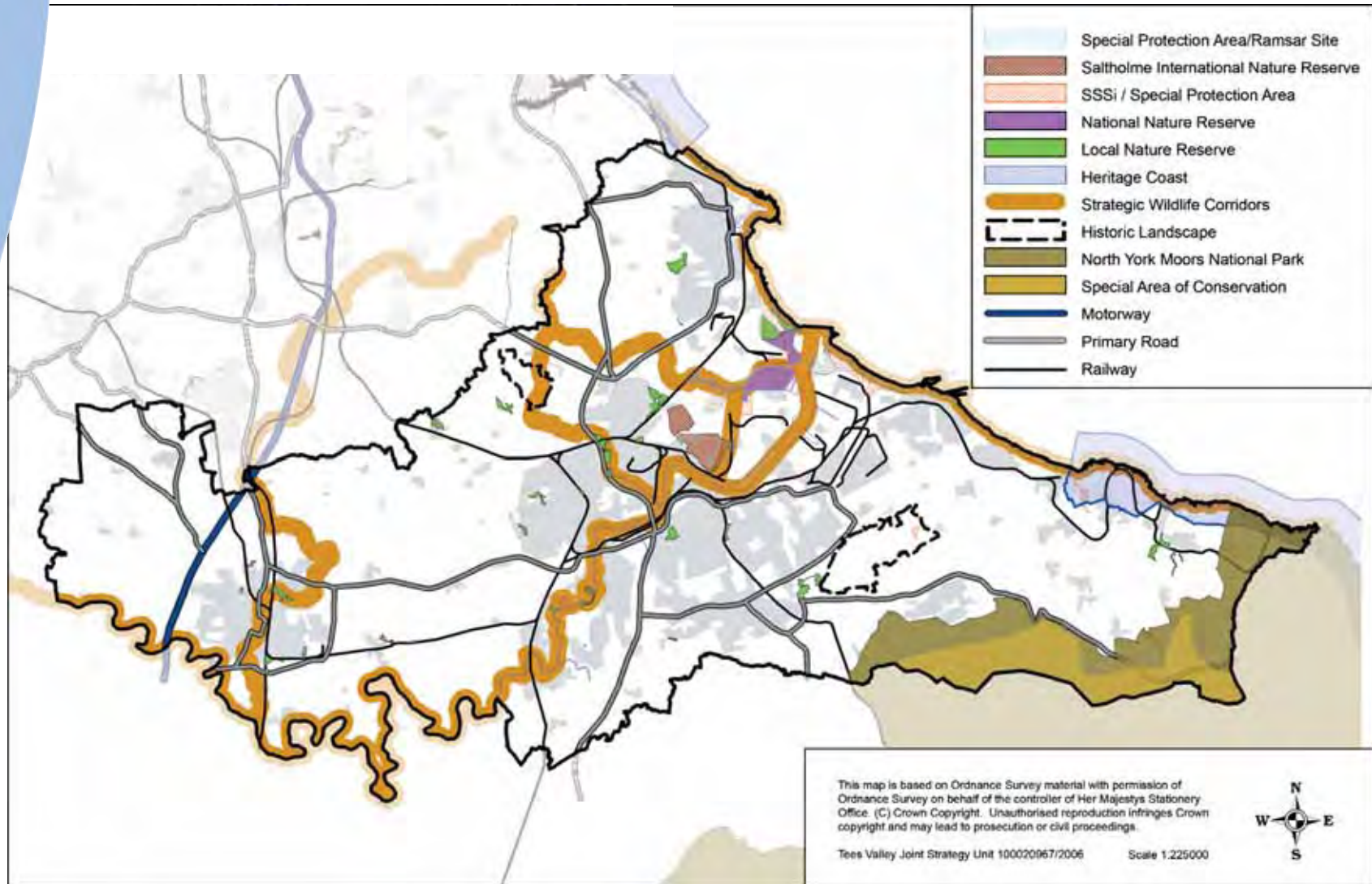
- 5.8 Away from the Tees Estuary and coast there are a number of other SSSI's, together with a large number of non-statutory sites of local interest (Sites of Nature Conservation Importance/County Wildlife Sites) which provide a good representation of different habitats and species. Some of these sites are designated as Local Nature Reserves. Of particular importance as habitats are the riverbank woodlands. The highly agricultural nature of the Tees Lowlands means that semi-natural woodland is not widespread. Much of the woodland cover, such as that in the Wynyard area, is modified by later ornamental planting and management. However the River Tees, in its deeper meander bends, retains woodland on the steep banks, as does the River Leven which is particularly well wooded in its central stretch. The incised river and beck valleys of East Cleveland also contain important semi-natural woodland habitats.

²⁹ Natural Area Profiles; Natural England (profiles can be downloaded at www.naturalengland.org.uk)

Map 2: Countryside Character Areas And Natural Areas



Map 3: Biodiversity And Designated Areas



- 5.9 The open heather moorland of the North York Moors and Cleveland Hills is of considerable importance for its vegetation and breeding birds. Much of the moorland of the North York Moors National Park within the Tees Valley is designated as a Site of Special Scientific Interest, Special Protection Area and Special Area of Conservation.
- 5.10 The Tees Valley Biodiversity Partnership has produced a Local Biodiversity Action Plan³⁰ and is currently developing and reviewing a number of species and habitat action plans in accordance with identified sub-regional and local priorities.

Historic Environment

- 5.11 Certain landscapes in the Tees Valley, in particular the Eston Hills, are of particular importance because of the range and quality of the archaeological and historic components they contain. The Tees Valley contains 59 Scheduled Ancient Monuments, and a number of parks and gardens that are of historic interest, together with many listed buildings and conservation areas.
- 5.12 Historic features should be safeguarded and their settings often provide opportunities to link into the wider green infrastructure network. Many historic features are important in providing informal recreation and enjoyment of open space.

Water Management and Flood Control

- 5.13 River corridors are part of the Tees Valley's green infrastructure, and they can be used to manage

flood risk positively by making available space for water. Woodlands and wetlands in particular have the capacity to absorb rainwater, slow down the rate of run-off and reduce the risk of flooding downstream. The general presumption against development in flood plains can result in areas of undeveloped land that could form part of a green infrastructure network.

- 5.14 The Environment Agency's Corporate Strategy 2006-2011³¹ sets out the general intention of the Agency to help to create green space, conserve and enhance habitats and biodiversity, and seek recreational opportunities where appropriate through flood defence schemes.
- 5.15 There are two Flood Risk Management Plans covering the Tees Valley:
- The Tees Catchment Flood Management Plan (CFMP)³² is a high level planning tool that will set policies for flood risk management within the Tees Catchment, and
 - The Tees Tidal Flood Risk Management Strategy (FRMS)³³ identifies preferred management measures to deliver the CFMP policies for the Tees Estuary. The study area for the Strategy extends from the mouth of the estuary to the A66 road crossing point. It includes the Tees Barrage which is a movable weir that limits the tidal influence of the estuary



Photo by Stockton-on-Tees Media Store

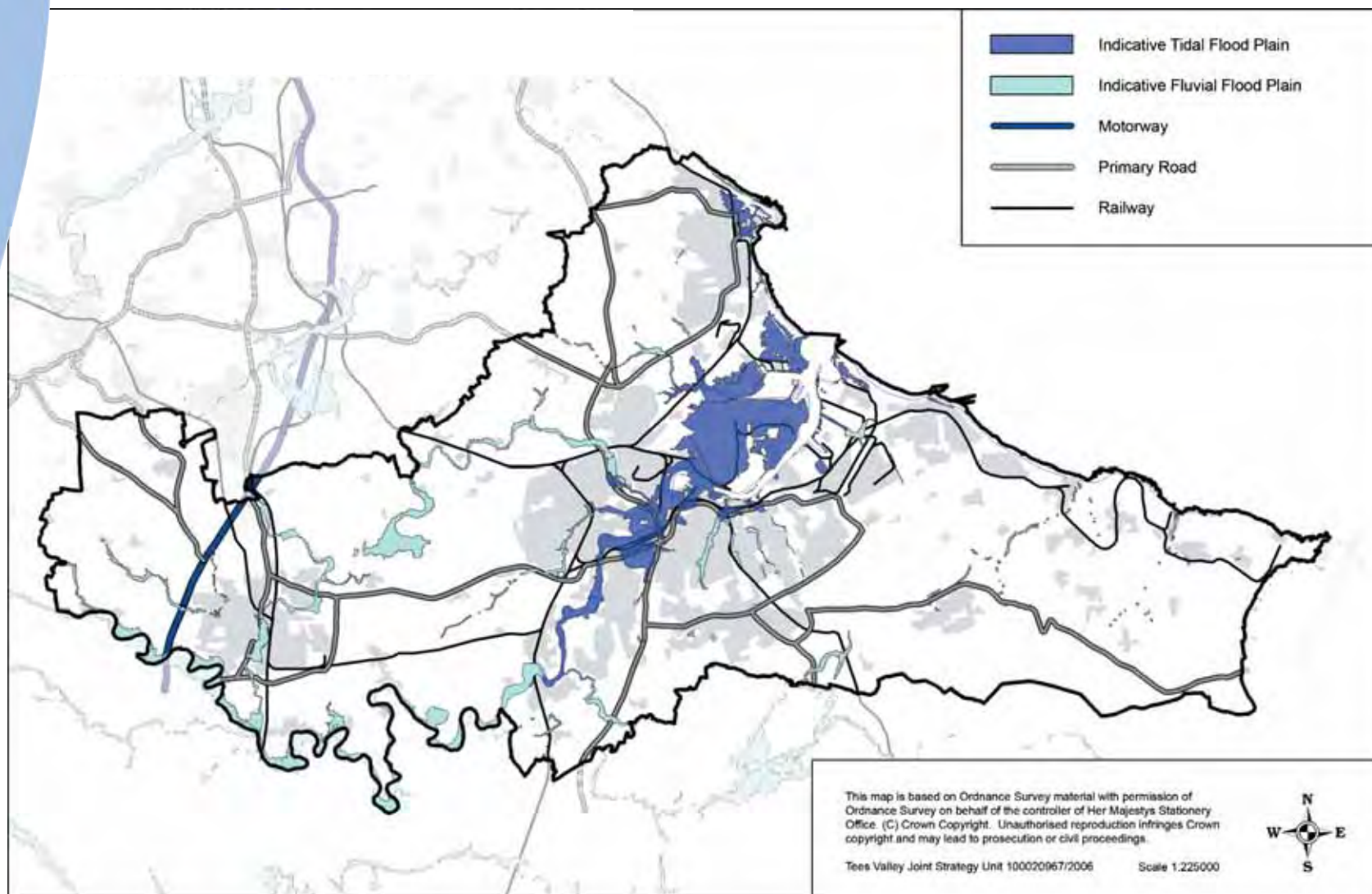
³⁰ Tees Valley Biodiversity Action Plan; Tees Valley Wildlife Trust/tees Valley Biodiversity Partnership, June 1999

³¹ Corporate Strategy 2006-2011 - Creating a Better Place; Environment Agency, 2006

³² Tees CFMP - under development by Environment Agency; consultation draft expected April 2008

³³ Tees Tidal Flood Risk Management Strategy Scoping Report; Environment Agency, March 2005

Map 4: Indicative Flood Plain Areas



- 5.16 The Tees Tidal FRMS also identifies the potential for additional environmental gains from addressing flood risk. For example the creation of new habitat at Greatham to compensate for habitat loss due to coastal squeeze, and flood protection /water management work in the Port Clarence area that will support the establishment of Saltholme Nature Reserve. The Environment Agency and RSPB have undertaken a Wetland Feasibility Study for the North East with the aim of identifying potential areas for the creation/ restoration of wetland BAP habitats.

Derelict, Vacant and Unused Land

- 5.17 The Tees Valley Baseline and Scenario Study³⁴, prepared in advance of the Tees Valley Vision, stated that the decline in manufacturing had generated over 1,000 hectares of derelict land. National Land Use Database figures for 2004 confirmed the scale of the problem in Tees Valley, identifying 760 hectares of previously developed vacant land and 520 hectares of derelict land and buildings. In addition there are substantial areas of land, particularly along the Tees Corridor, that are held for industrial and expansion purposes, but are only likely to be developed in the long term.
- 5.18 The Green Infrastructure Strategy will offer new opportunities to address the problem of derelict and vacant land in the Tees Valley. Even where land is required for development in the longer term, solutions of a temporary nature can also make a positive contribution. Uses such as biomass energy generation can provide an effective temporary function for some derelict or unused sites. As land values rise or demand for development increases, sites could be developed while retaining

the main elements of the green infrastructure. It should be noted however that previously developed, derelict and vacant land often has the potential to support biodiversity of local (or greater) importance and also features of heritage value. Such sites should be identified so that they are not adversely affected by biomass planting or other environmental works, and they can be integrated as part of the green infrastructure concept.

Tourism

- 5.19 The Green Infrastructure Strategy will support the development of tourism across the Tees Valley. Activity based tourism will be supported through the sub-region's extensive network of footpaths, bridleways and cycleways which can be further developed through the implementation of the Strategy. This will also deliver wider economic and social benefits by targeting investment in key locations. Considerable work has already been done in Redcar & Cleveland to develop activity based tourism and this can be used as a model for other parts of the Tees Valley.
- 5.20 Nature based tourism can also benefit from the Green Infrastructure Strategy. The new nature reserve currently being developed at Saltholme can act as a hub for this type of activity and the development of a green infrastructure network will help to link the site with other areas, particularly those around the Tees Estuary such as Teesmouth National Nature Reserve, Seaton Common and Cowpen Bewley Woodland Park.



Photo by Stockton-on-Tees Media Store

³⁴ Regeneration for the Tees Valley: Baseline and Scenario Study; GHK, July 2001



River Skerne - Darlington
Photo by Tees Valley Joint Strategy Unit

The Existing Green Infrastructure Resource

- 6.1 This section summarises the existing elements that make up the baseline green infrastructure resource in the Tees Valley sub-region. It briefly describes the methodology used to identify the existing green infrastructure resource, and considers the significance and opportunities of the resource in the context of the Tees Valley.

Methodology

- 6.2 The identification of existing green infrastructure elements has been achieved principally through the use of Geographical Information Systems (GIS) mapping. The mapping work was carried out by the North East Community Forest (NECF), mainly using their existing database. The NECF database contains a large number of potential green infrastructure classes, but many of these are only appropriate or useful at a more local level. Focussing at the strategic/sub-regional level suggested that the following elements should be identified and mapped:

- **Landscape designations**, including Countryside Character Areas, Natural Areas, Heritage Coast, National Park, and Historic Landscapes
- **Biodiversity features**, including National Nature Reserve, Local Nature Reserves, Sites of Special Scientific Interest, and Strategic Wildlife Corridors
- **Natural Processes**, such as principal water courses, including Indicative Tidal and Fluvial Flood Plains
- Major areas of **derelict, vacant and unused land**

- **Strategic Open Space, Open Areas, and Recreational Areas**, including green wedges, principal parks and gardens, country parks/ countryside gateway sites, areas of woodland, and the North York Moors National Park
- **Connectivity**, including strategic footpath routes and cycle routes.

Levels of Green Infrastructure Planning

- 6.3 Green infrastructure planning can be applied at a number of levels and scales. At a fundamental level green infrastructure is not really different at varying spatial scales. Ultimately it is something that exists at a local scale, yet locally specific elements and links interact to create synergies and higher level effects that have significance at a scale greater than the local.
- 6.4 Examples of green infrastructure at different levels and scales include:
- **Regional scale** - principally through the Regional Spatial Strategy, where the emphasis is on the highest priority elements and networks, for example nationally designated sites and major river corridors
 - **Sub-regional scale** - at a County or City Region level where the emphasis is on identifying elements which have the potential to qualitatively enhance the sub-region's environment and where the infrastructure may be significantly strengthened by higher level initiatives that span local authority boundaries.

Examples include extensive parks and gardens, local nature reserves and SSSI's, and areas of woodland

- **District scale** - through Local Development Frameworks and local green space strategies, where the emphasis is on providing suitable and sufficient green spaces for recreation, amenity and conservation, and providing routes and pathways for multiple purposes
- **Neighbourhood scale** - where the emphasis is on the cumulative effect of many local features, such as street trees, private gardens, allotments, small water bodies and streams, and small pockets of unused land

6.5 The elements identified in paragraph 6.2 above are considered to be the strategic, sub-regional elements of green infrastructure. Other more local elements such as smaller parks and gardens, local wildlife sites (Sites of Nature Conservation Importance), and recreational areas also form an important part of the green infrastructure resource. Many of these elements will be incorporated within the strategic network components identified in section 7 and can be integrated within the green infrastructure framework. However it is important that other sites are not left in isolation and proposals should be developed at a more local level to provide an appropriate level of linkage and connectivity.

Landscape Issues and Opportunities

- 6.6 The landscape of the Tees Valley sub-region has been influenced by many factors, both physical and human. During the 19th and 20th centuries rapid urban and industrial development took place. Valuable mineral deposits were the historical basis for the establishment of the chemical, iron and steel industries. The River Tees and its estuary offered opportunities for the transport and export of minerals and finished products produced in the Tees Valley area and beyond. Urban development over the last 150 years or so has had a dominant influence on the main settlements of Darlington, Hartlepool, Stockton-on-Tees, Middlesbrough and Redcar, and many parts of the urban areas have limited or poor quality open space. Many smaller towns and villages outside the main urban areas have only seen limited development, and have retained much of their vernacular and historic character.
- 6.7 The quality of much post-war urban development is often considered to be poor, and because it is usually evident on the urban fringe and from principal road and rail routes it can lead to a perception that the Tees Valley has a poor character, image and environmental quality.
- 6.8 There are however features within the urban fabric of the Tees Valley that offer opportunities for integration within a green infrastructure network. These include landmarks such as the Transporter Bridge and Newport Bridge, features associated with the area's industrial past such as chemical and steel structures and railway artefacts

as well as large urban parks and gardens. A good example of the way in which former industrial structures and sites have been incorporated into green infrastructure can be found in the Ruhrgebiet area of Germany, through the Emscher Landschaft Park.

- 6.9 Upland areas, such as the Eston Hills, North York Moors, and Magnesian Limestone Ridge, provide opportunities for views across the countryside and urban development.

Biodiversity Issues and Opportunities

- 6.10 Despite substantial reclamation of inter-tidal areas for industrial and port development, the Tees Estuary and adjacent coastline remains of international importance for wildlife. Parts of the marine environment also contain important archaeological remains. While the protection and enhancement of key wildlife sites must continue to be a priority, the Green Infrastructure Strategy can provide a number of opportunities to increase and enhance biodiversity, including:
- Addressing the issue of fragmentation through opportunities for habitat restoration and creation, with priority to areas that would benefit most. While this can include addressing gaps in existing wildlife corridors, there is also a need to address connectivity in the wider landscape through expanding habitats or creating 'stepping stones' of habitat as well as corridors
 - Opportunities for restoration and better management of woodland

- Opportunities associated with new development to help deliver nature conservation enhancement

Natural Processes Issues and Opportunities

- 6.11 The Tees Valley sub-region is dominated by the River Tees, its estuary, and its main tributaries including the River Skerne, River Leven, Greatham Creek, and Billingham Beck. This river system contributes to the landscape character of the sub-region, and is reflected in the pattern of land use and settlement.
- 6.12 Flood Risk Management measures can make a contribution to the aims of green infrastructure in a number of ways at both whole river catchment level and local level. Examples include:
- Wetland creation through the provision of flood storage capacity
 - Potential to incorporate additional conservation and recreation benefits into flood defence schemes, for example, general habitat creation to enhance biodiversity, provision of footpaths and cycle ways along water courses, incorporating public art into flood defence structures, and provision of interpretative information
 - Potential for removal of flood defences in certain circumstances to reconnect rivers to their flood plains, i.e. re-establishing natural systems

- Creation of compensatory habitat in response to rising sea levels
- Naturalisation of modified/artificial river channels
- Habitat protection through sensitive maintenance regimes
- Water level management to protect wetland habitats
- Potential for routine maintenance of Flood Risk Management areas to contribute to green infrastructure maintenance

6.13 Realisation of many of the above potential benefits is dependant on funding availability. Many flood defence schemes that could have wider benefits for green infrastructure may not be able to be funded under current flood defence prioritisation arrangements, and alternative sources of funding will need to be investigated.

6.14 New developments have the potential to incorporate opportunities for the minimisation of surface water run-off through the adoption of sustainable drainage systems, and other features such as green roofs.

6.15 Access to rivers and watercourses for recreation provides the potential for closer association with 'natural systems' and the green infrastructure network should support this opportunity, offering further educational, cultural and recreational benefits. However it is also important that enhanced access does not adversely affect sensitive riparian habitats and ecological assets.

Climate Change Issues and Opportunities

6.16 All parts of the country will experience the affects of climate change. The government has recently published for consultation a Planning Policy Statement on Planning and Climate Change.³⁵ This places climate change much more at the forefront of planning processes and decision making. The consultation statement contains a number of key objectives that a Green Infrastructure Strategy can help to meet. These include:

- Securing the highest viable standards of resource and energy efficiency in shaping places where people live and work
- Reducing the need to travel and encouraging cycling and walking
- Shaping places so that they are resilient to the effects of climate change
- Sustaining biodiversity and recognising that habitats and species will be affected by climate change

A recent report by the North East Assembly³⁶ demonstrated how the North East could be affected by climate change. These affects could include:

- Loss of important habitats particularly in the uplands and on the coast
- Changing agriculture and forestry practices and increased risk of soil erosion and forest fires

³⁵ Planning Policy Statement: Planning and Climate Change - Supplement to PPS1; Consultation, Department for Communities and Local Government, December 2006

³⁶ And The Weather Today Is.....Climate Change in the North East, North East Assembly on behalf of Sustainability North East

- Increased risk of flooding, erosion of river banks and construction and maintenance of sea defences
- Disruption to transport networks through weather events

6.17 The low-lying nature of much of the Tees Valley means that it could be particularly susceptible to the affects of climate change. The Tees Valley Climate Change Partnership has produced a Climate Change Strategy for the sub-region³⁷. The Strategy describes some of the expected impacts of climate change on the Tees Valley. These include, for example:

- Business and Tourism, such as rising insurance and energy costs and more stringent planning regulations. However there may also be opportunities such as growth of the biofuels industry and an increase in biomass planting
- Risks to health, such as heat waves and floods
- Changes in agricultural practices, increased soil erosion and the possible need for additional drainage to deal with water shortages
- Problems on the transport network, such as subsidence, flooding, landslips
- Additional strain on the water drainage and flood defences of buildings and urban areas - more frequent and intense events result in flood defence and water run-off systems operating outside their design criteria; damage to building foundations through

ground shrinkage; wind damage leading to structural failure; increased demand for air-conditioning in buildings

- Reduced water levels resulting in poorer water quality and changes in wetland habitats.

6.18 Action taken now could help to ameliorate some of the affects, and the Green Infrastructure Strategy provides a significant opportunity to respond to and mitigate the potential impacts of climate change in conjunction with the Climate Change Strategy. Opportunities could include for example:

- More trees and woodland, particularly in urban areas, to provide shade and cooling among developments and open spaces - green refuges to lessen the effect of an 'urban heat island'
- New water-bodies and areas to cope with increased storm-water run-off
- Encouragement of the principles of sustainable drainage systems (SUDS) to ameliorate flood risk
- Extending the walking and cycling network along green corridors, helping to reduce reliance on private transport
- Promoting action at the landscape scale to link, buffer and extend existing semi-natural habitats to help wildlife adapt to the impact of climate change.

³⁷ Tees Valley Climate Change Strategy - Reporting Period 2006-2012; Tees Valley Climate Change Partnership, 2007

Derelict, Vacant and Unused Land Issues and Opportunities

- 6.19 The legacy of the decline of heavy industry has been a physical environment marred by derelict, vacant and unused land and buildings. Recent estimates have put the amount of derelict and under-used land in the Tees Valley at over 1,000 hectares.
- 6.20 Although much of this land is identified for development in local plans/local development frameworks, in many instances development is more likely in the long term rather than the short term. In some cases land is held for possible future development by major industrial concerns and they are often unwilling to release it for alternative uses or users. Nevertheless there are/could be opportunities for greening derelict, vacant and unused land to deliver green infrastructure benefits, even if on a short or medium term basis.

Strategic Open Space and Recreation Areas Issues and Opportunities

- 6.21 The countryside around the Teesside conurbation, the main towns of Darlington and Hartlepool, and a number of the smaller settlements, is included within The Tees Forest boundary. The Tees Forest therefore represents a major element of the Tees Valley green infrastructure resource. The aim of the Forest is to retain the best landscapes, restore those in decline, and create new landscapes in areas of degradation.

- 6.22 A number of 'Gateways' have been established to provide access points to the Tees Forest for the community. Primary gateway sites provide a range of high level facilities, including a visitor centre, with open access areas for recreation and locations for woodland planting. Secondary gateway sites have similar characteristics but generally offer fewer facilities.
- 6.23 Accessible woodland, nature reserves and country parks provide a valuable green space resource that should be promoted, and opportunities taken to improve access to existing and new development areas.
- 6.24 Green wedges - areas of open space extending from the countryside into the built up areas - are a feature of the Tees Valley sub-region and have been protected through planning policies for many years. Most of the green wedges are included within the boundary of the Tees Forest. The green wedges provide excellent opportunities for further enhancement of existing green infrastructure elements, along with accessibility improvements.
- 6.25 The proximity of the North York Moors National Park provides a large number of recreation opportunities close to the main urban areas of the Tees Valley.



Connectivity Issues and Opportunities

- 6.26 There is already a well developed footpath and cycle way network that can provide opportunities for integration into a green infrastructure network. These include the Teesdale Way running virtually the whole length of the River Tees within the Tees Valley sub-region, and Sustrans cycle routes providing links from East Cleveland and Redcar through to Middlesbrough, Stockton-on-Tees, Hartlepool, and, via Wynyard, into County Durham.
- 6.27 Opportunities should be explored to provide routes and links into the strategic network from new and existing developments.

Strategic Green Infrastructure

- 6.28 Map 5 shows the strategic elements of green infrastructure in the Tees Valley sub-region. The key features are considered to be:

Tees Forest - surrounding the Teesside conurbation and the main towns of Darlington and Hartlepool, and penetrating the urban areas along the green wedges

Gateway sites - both primary and secondary gateways provide easy access into the Tees Forest and the surrounding countryside

Major Parks and Gardens - including urban parks such as Albert Park and Stewart Park in Middlesbrough, South Park in Darlington, Ropner Park in Stockton, Saltburn Valley Gardens in

Redcar & Cleveland, and Ward Jackson Park in Hartlepool that provide a major resource for people living in the main urban areas

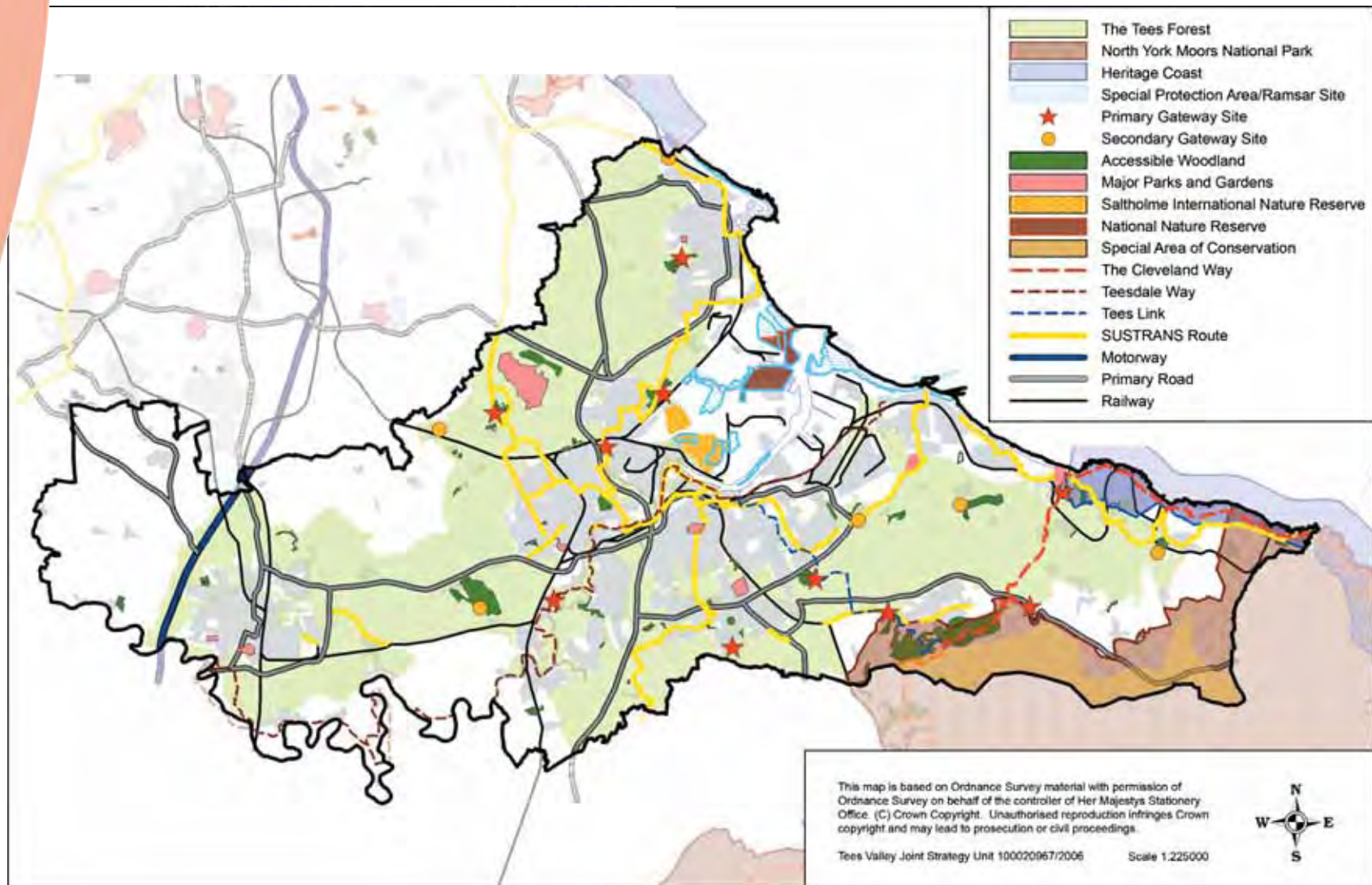
Nature Reserves/Protected Wildlife Sites - as well as being of critical importance in representing a range of habitats and their associated species, nature reserves and protected wildlife sites offer a valuable opportunity for people to experience and learn about wildlife on their own doorstep. As well as the Teesmouth National Nature Reserve and the Salholme International Nature Reserve currently under development in the Tees Estuary, there are many local nature reserves. Some of these local nature reserves are within or very close to residential areas and provide excellent opportunities for local communities to gain access to the open space network

National Park and Heritage Coast - these nationally designated areas must be integrated within a green infrastructure network

Rivers and Watercourses - the River Tees is now acting as a focus for regeneration, and improving access to the river corridor is a key element. The River Tees and its tributaries offer excellent opportunities for environmental enhancement and enhancement of local biodiversity



Map 5: Green Infrastructure Resource



- 6.29 In addition the following provide for strategic access and movement within and between the urban areas and the countryside:

Major footpaths and cycle ways - long distance footpaths such as the Cleveland Way, Teesdale Way, and Tees Link, along with the strategic cycle routes provided by Sustrans and the local authorities, provide links from the urban areas into the countryside and often utilise corridors that could form a basis for a green infrastructure network

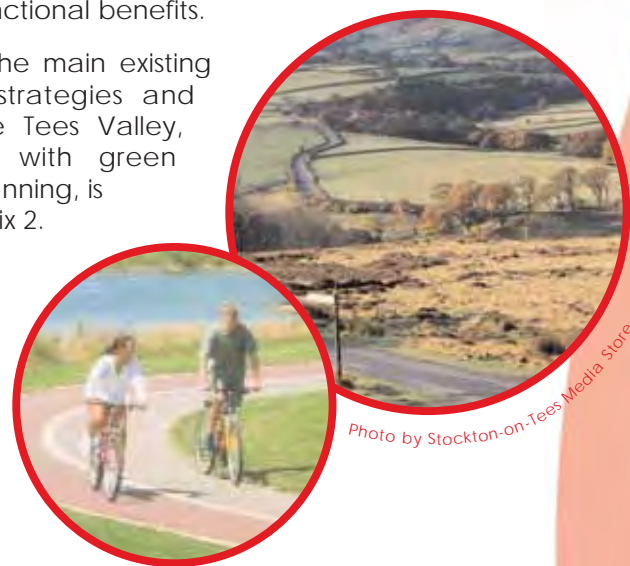
Major roads and railways - roads and, to a very limited extent in the Tees Valley, railways present opportunities to link urban and countryside areas. However roads and railways can also present a barrier to access to the countryside particularly where they cut across footpaths and cycle ways

- 6.30 The corridor concept is central to the development of a strategic green infrastructure network. Networks of parks, woodland and other green spaces are linked to the urban areas and the wider countryside by footpaths, bridleways and cycle ways. Urban parks, country parks and other green spaces are joined up to form continuous green corridors between town and country.
- 6.31 The corridor concept fits well with the physical structure of much of the Tees Valley sub-region. Green wedges form corridors of open space from the countryside and urban fringe running into the heart of the built up areas of the Teesside conurbation and main towns of Darlington and Hartlepool. Strategic wildlife corridors provide opportunities for enhancing and connecting sites of wildlife interest and increasing their accessibility

to local residents. A network of footpaths, bridleways and cycleways, often making use of green wedges and wildlife corridors, provide links both within the urban areas and between the urban areas and surrounding countryside.

Existing Plans and Strategies

- 6.32 It is clearly important that taking forward and developing the green infrastructure concept builds on existing data, strategies and plans and does not cover old ground and duplicate effort. There are already a large number of plans and strategies in place that contain policies and initiatives that are closely linked to the concept of green infrastructure planning and will help form the basis of a Tees Valley green infrastructure network. The green infrastructure initiative is about adopting an holistic approach to existing strategies and resources to provide multi-functional benefits.
- 6.33 A summary of the main existing and inherited strategies and initiatives in the Tees Valley, and their link with green infrastructure planning, is given in appendix 2.





Cycling in Billingham Beck - Stockton-on-Tees
Photo by stockton-on-Tees Media Store

Towards a Strategic Green Infrastructure Network

Identification of Priorities

7.1 There are two principal (over-arching) priorities that the strategic Green Infrastructure Strategy for the Tees Valley is seeking to achieve:

- The first is the protection and, where appropriate, enhancement of the critical elements of the existing green infrastructure resource within the conurbation and main towns and settlements
- The second is developing and extending where necessary the existing elements of green infrastructure into a multi-functional network that links existing and proposed green spaces. This would also address the issue of gaps in the network

7.2 The priorities for green infrastructure also need to be defined in terms of the wider priorities for economic growth, development and regeneration. These strategic priorities are:

Flagship Regeneration Projects - Central Park, Darlington; Victoria Harbour, Hartlepool; North Shore, Stockton-on-Tees; Greater Middlehaven, Middlesbrough; Durham Tees Valley Airport

Tees Valley Vision/City Region Development Programme Spatial Priorities - Stockton-Middlesbrough Initiative; Darlington Gateway; Coastal Arc

Housing Market Renewal/Intervention Areas - North Central Hartlepool and West Central Hartlepool; Middlesbrough, including Whinney Banks, West Lane, Gresham, North Ormesby and

St. Hilda's (Greater Middlehaven); Redcar and Cleveland including South Bank in the Greater Eston area and parts of Redcar; Stockton-on-Tees focussing particularly on areas close to Stockton town centre, and north Thornaby

Other Strategic Growth Areas - including residential developments at Middle Warren (Hartlepool), Ingleby Barwick (Stockton-on-Tees) and West Park (Darlington); business developments at Faverdale (Darlington), Wynyard (Stockton-on-Tees/Hartlepool); major employment site at South Tees (Redcar and Cleveland)

Strategic Environmental Initiatives - Green-Blue Heart; Saltholme Nature Reserve; the "Wave" within Victoria Harbour; Hartlepool Rail Corridor; The Tees Forest and Primary Gateway Sites; Middlesbrough Beck Valleys project

Strategic Access Routes - Sustrans routes; long distance footpaths (Cleveland Way, Teesdale Way, Tees Link); strategic equestrian routes

7.3 The above priorities represent sites and areas where their implementation and development can be aided and enhanced by their integration within the green infrastructure network, and where greening should be included as a key part of their development.

7.4 In addition the green infrastructure network should also be integrated with initiatives to address issues of improving water quality and managing flood risk, and projects to restore vacant and derelict land for both temporary and longer term greening. The network should also

support and reinforce strategic planning priorities to protect the countryside and open space through green wedges and strategic gaps.

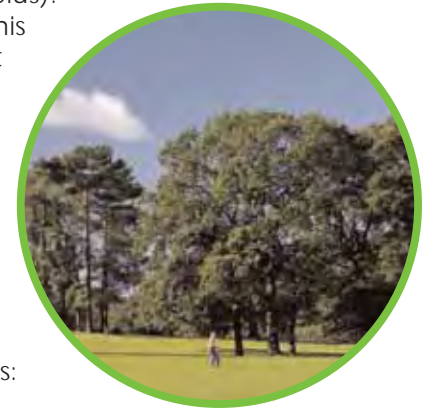
- 7.5 Green infrastructure should also address the needs of local people and local communities, and in particular those communities that do not have the means or ability to gain easy access to the countryside and major areas of open space. The Index of Multiple Deprivation (IMD) provides an indication of the worst performing 'Super Output Areas' where, for example, levels of car ownership will generally be low and health may be poorer than more affluent areas. Map 7 shows the existing green infrastructure resource in the Tees Valley in relation to the overall IMD ranking and demonstrates the need for the Green Infrastructure Strategy to address open space provision within the inner urban areas of the conurbation and main towns.

Green space standards

- 7.6 Standards are one way of ensuring that green space is within easy reach of local communities and residential areas. There are a number of standards available covering different types of green space, for example accessibility to open space, playing fields, woodland, nature conservation sites etc. Local planning authorities often include open space standards in their local plans/local development frameworks.
- 7.7 The Green Infrastructure Planning Guide³⁸ considers Natural England's Green Space standard to be useful for green infrastructure

planning, and includes it in a modified form known as ANGST+ (Accessible Natural Greenspace Standard plus).

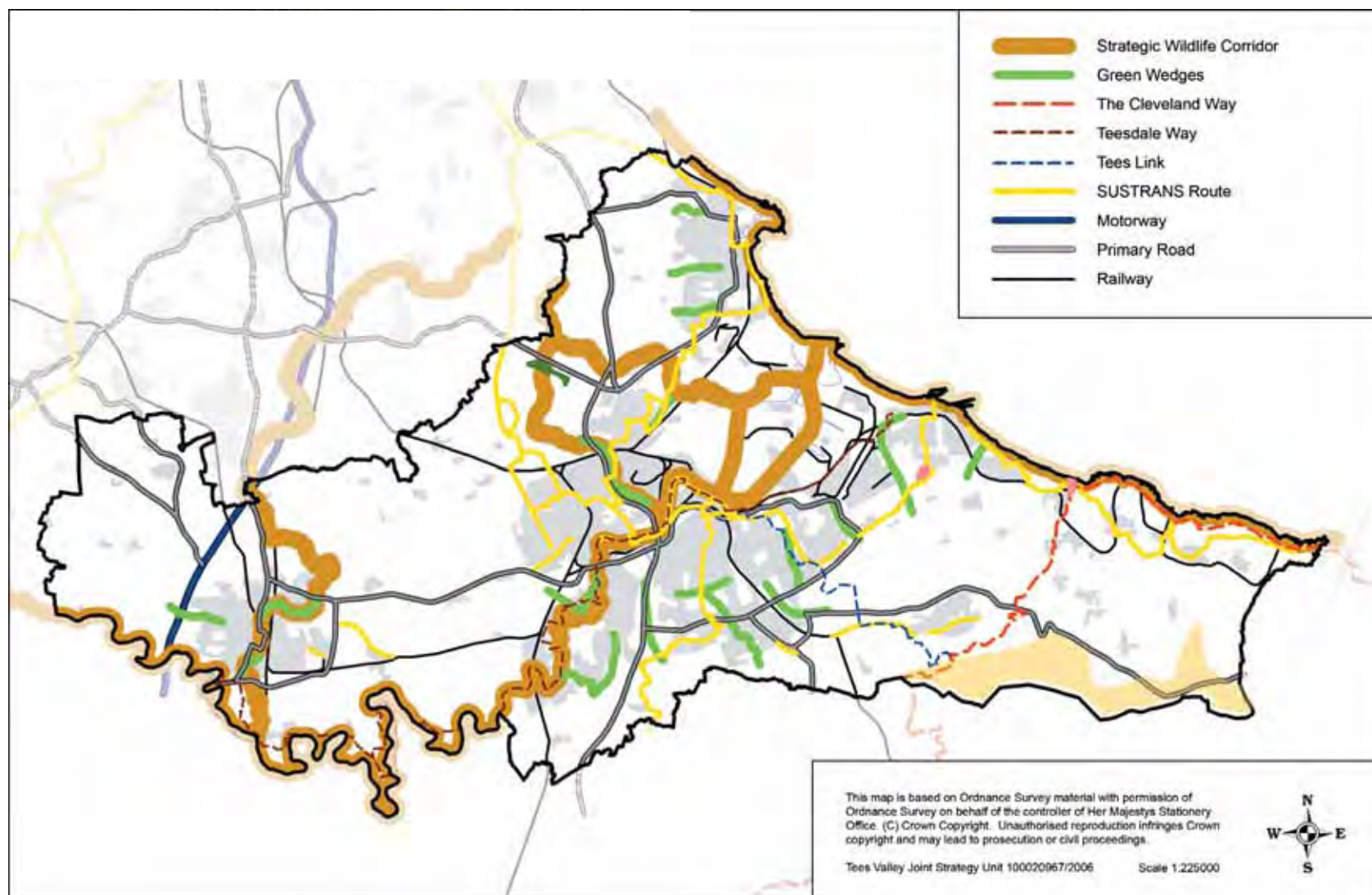
ANGST+ is included in this strategy as a standard that local authorities and others in the Tees Valley could work towards achieving, although it is recognised that there may be necessary variations to meet particular local circumstances and to ensure consistency with a local authority's own standards:



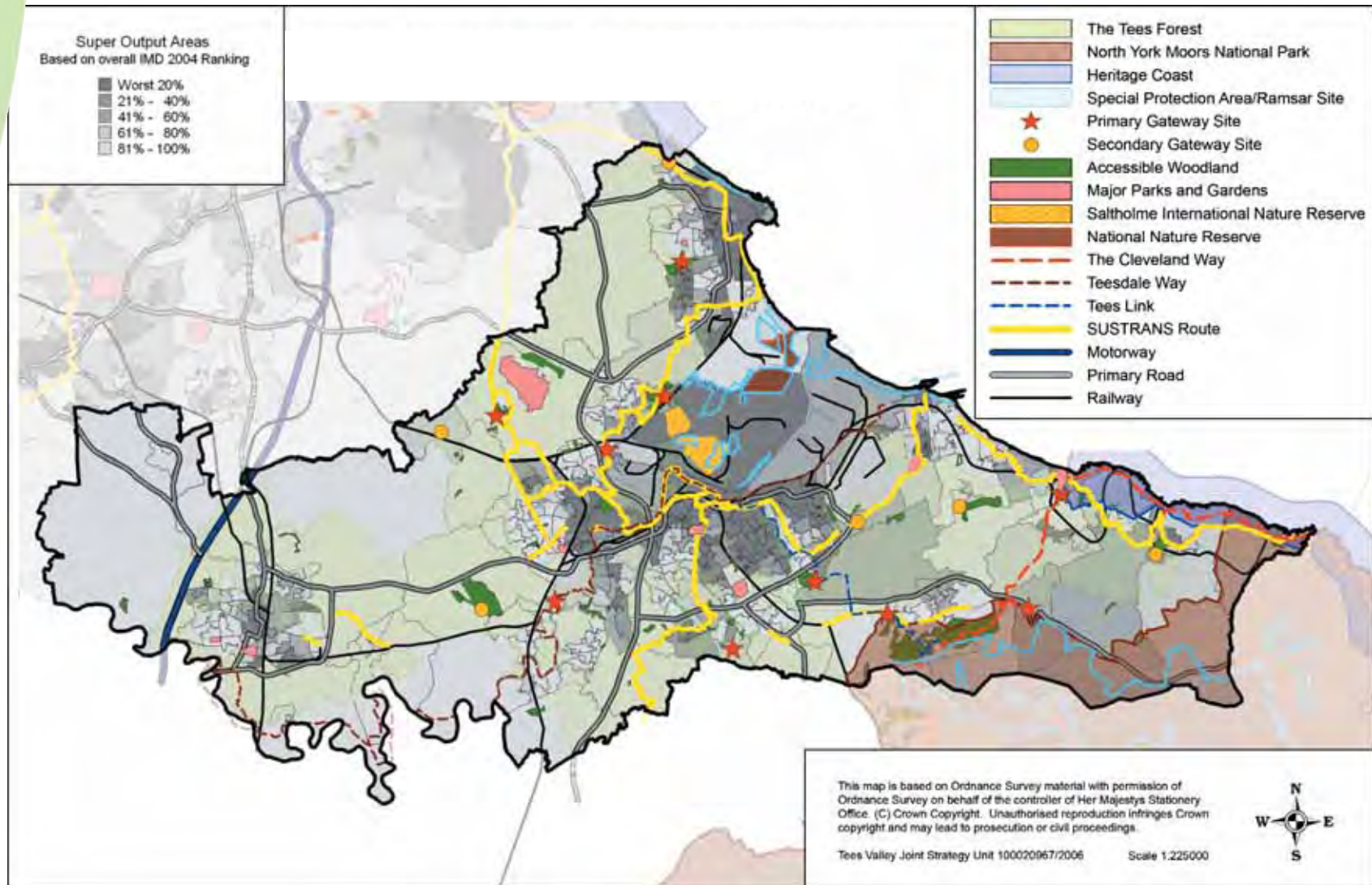
- No person should live more than 300m from their nearest area of natural green space of at least 2 hectares in size;
- There is provision of at least 2 hectares of natural green space per 1,000 population;
- That there should be at least one accessible 20 hectare site within 2km from home;
- That there should be one accessible 100 hectare site within 5km;
- That there should be one accessible 500 hectare site within 10km; and
- That adjacent green spaces are interconnected, the priority and extent being determined by local decision making informed by stakeholder involvement.

³⁸ Green Infrastructure Planning Guide: Northumbria University, North East Community Forests, University of Newcastle upon Tyne, Countryside Agency, English Nature, Forestry Commission, Groundwork, 2005

Map 6: Strategic Corridors And Links



Map 7: Existing Green Infrastructure Resource In Relation To Overall IMD Ranking Score



Emerging Issues

- 7.8 The Green Infrastructure Strategy should also help to address further emerging environmental and social issues and concerns. These include:

Recycling and Renewable Energy - closely linked to the issue of climate change, the green infrastructure network could play an important role in the sustainable management of waste, water and pollution generated in urban areas, and could provide opportunities for the location and development of recycling schemes, woodlands for biomass production, and fully functional floodplains to store flood waters.

Aspirational/Changing Lifestyles - revolving around issues such as a desire from many people for more opportunities to socialise, for example street cafes and good quality open spaces close to offices and other places of employment; more opportunities to improve physical health and well-being - the Countryside Agency's 'Green Exercise' programme is a good example where activities such as Green Gym, Greenstart, Active Woods, and Walking the way to Health can all be integrated within a green infrastructure network.

Sustainable Transport Alternatives - many strategies and initiatives are now in place or are being developed to reduce the impact of the increasing use of the car for private and business travel. The green infrastructure network can play a valuable role in complementing these strategies and initiatives by, for example, facilitating greater opportunities for cycling, walking and horse-riding, creating new multi-user routes with a focus on health, safety and accessibility.

Green Infrastructure Guidelines

- 7.9 The following guidelines will help to promote the aims of the green infrastructure planning within the Tees Valley:

Planning and Development

- Proposals should promote social and economic regeneration through the creation of high quality open space, green space and landscaping
- Green infrastructure should be fundamental to the planning of major new development and re-development schemes, and should help to integrate development with surrounding townscape and landscape, and with adjoining communities
- Proposals should be designed to high standards of quality and sustainability to deliver social, economic and environmental benefits
- Where appropriate use should be made of planning conditions, planning obligations and section 106 agreements to secure the provision and maintenance of green infrastructure
- Community involvement should be encouraged from the outset in the design, implementation and management of green infrastructure
- The principle of 'net gain' should apply when there is a loss in green infrastructure resource

Accessibility

- Enhanced access by foot, cycle and, where appropriate, by horse is fundamental
- New access routes should focus as a priority on areas of planned growth, regeneration and redevelopment, particularly where public access may be restricted at present
- The development of the Tees Valley Metro offers opportunities to improve accessibility to a number of major green infrastructure elements - for example a halt near Teesside Park will also serve the Green-Blue Heart, River Tees Corridor and Tees Barrage; a halt in the vicinity of Cowpen Bewley could provide access to Saltholme Nature Reserve, the Tees Estuary and the woodland park
- Any planned park and ride facilities, whether for the Metro or as part of an enhanced bus network, should where possible be integrated within green infrastructure network offering, for example, links into the surrounding countryside and picnic facilities, as well as functional parking facilities
- Integrate green infrastructure with proposals by Natural England to create a new right of public access to England's coastline along a continuous access corridor
- Where possible new road construction or highway improvement schemes should make a positive contribution to green infrastructure by, for example, incorporating features such as ponds or wild flower meadows or contributing to long term green infrastructure management

Landscape and Historic Environment

- Green infrastructure should contribute to the management, conservation and improvement of the local landscape and townscape and reflect the landscape character approach
- Local landscape and townscape character assessments should be undertaken when appropriate
- Green infrastructure should contribute to the protection and enhancement of historic assets
- Where possible derelict, vacant and unused land should be restored/reclaimed for uses that contribute to the objectives of the Green Infrastructure Strategy. Land identified for specific uses but where development is only likely in the long term (for example some employment land) should be considered for temporary 'greening' such as timber production for local renewable energy schemes, although the biodiversity value of such land should also be taken into account
- A mosaic pattern of woodlands should form a core component of the green infrastructure network and should be planned and created in line with the Regional Forestry Strategy and the Tees Forest Plan
- Where appropriate woodland management and creation should include opportunities to produce sustainable supplies for local renewable energy projects

Biodiversity

- Green infrastructure should maintain and enhance biodiversity and ensure, where feasible, that development and implementation results in a net gain of Local Biodiversity Action Plan habitats
- Wildlife corridors should be managed in a way that facilitates the movement of species and where appropriate provide suitable linkages to counter existing fragmentation of habitats, particularly to and from designated wildlife sites
- New development should not damage existing wildlife sites and should enhance them where possible
- Green infrastructure should enhance the natural environment of the Tees Valley and retain or enhance landscape character as appropriate, particularly through the use of native species in planting schemes

Climate Change

- Where feasible and appropriate green infrastructure should be compatible with and contribute to natural processes and systems
- Design of new developments should, where feasible, contribute to environmental sustainability, for example by including features such as green roofs, planting schemes that do not require large amounts of water, and the principles of sustainable drainage systems (SuDS)

- Watercourses and wetlands should be enhanced and managed to create multifunctional assets capable of delivering recreation and biodiversity benefits as well as water storage or flood management functions
- Proposals should take account of the recommendations of the Tees Catchment Flood Management Plan and the Tees Tidal Flood Risk Management Strategy and Strategic Flood Risk Assessments
- Flood Management Schemes should make a positive contribution to green infrastructure such as improving or creating habitats

Leisure and Recreation

- Green infrastructure should create new leisure and recreational facilities, particularly where there are opportunities to link urban and countryside areas
- The importance of green space and green corridors in providing sport and recreation opportunities that can enhance and promote health and well-being should be recognised





Victoria Bridge - Stockton-on-Tees
Photo by stockton-on-Tees Media Store

A Strategic Network of Green Infrastructure for the Tees Valley

- 8.1 The outputs of the GIS mapping exercise and an analysis of the existing and inherited plans and strategies, together with an assessment of strategic developments and priorities, have formed the basis for the development of a strategic green infrastructure network for the Tees Valley.
- 8.2 This section identifies the component parts of the green infrastructure network, and gives a brief description of key elements that need to be prioritised, protected and enhanced. Although action should be promoted in all parts of the network, some priorities will be necessary to achieve the economic growth and regeneration vision for the Tees Valley.

Description of the Green Infrastructure Network at a strategic level

1 River Tees Corridor

At the heart of the Tees Valley's green network, the River Tees Corridor runs from beyond the boundary of the sub-region. Past Darlington, into the middle of the Teesside conurbation, through to the internationally important wetland habitats around the Tees Estuary. The River Tees provides a setting for a number of key regeneration projects including North Shore and Greater Middlehaven, as well as employment and industrial centres such as Teesport and the petro-chemical facilities at North Tees. The whole of the Corridor forms a strategic wildlife corridor providing a major route through the urban area and into the surrounding countryside.

In this Strategy the River Tees Corridor is considered in two distinct sections - 1a from the sub-regional boundary in the west to the Tees Barrage. This is the largely freshwater section of the river, passing mainly through rural/semi-rural landscapes; 1b from the Barrage to the mouth of the river is tidal and passes through a mainly urban, heavily industrialised landscape.

2 The Coast - Hartlepool to Cowbar

The whole length of the Tees Valley coastline is identified as a strategic wildlife corridor. The coast also provides a setting for some major existing and proposed developments, including Hartlepool Quays, Hartlepool Nuclear Power Station, Redcar Steel Complex, Coatham Enclosure in Redcar, Skinningrove Steel Works, and Boulby Potash Mine. The coastline to the north of Hartlepool and east of Saltburn has been designated as Heritage Coast.

3 River Skerne Corridor

A major green network component linking Darlington's historic South Park with the town centre, and extending north beyond Darlington into County Durham (Aycliffe Village, Preston Carrs, Morden and Bradbury). Parts of the corridor have been enhanced through the successful River Skerne restoration project. The corridor should complement proposals within County Durham, particularly with regard to opportunities for wetland habitat creation and enhancement.

4 River Skerne Corridor to West Park/Faverdale

A potential green corridor linking the River Skerne and Darlington town centre, with major residential and employment developments in the West Park and Faverdale areas. The corridor could follow the route of the Darlington - Bishop Auckland branch railway line and the disused track bed towards Faverdale and West Park. Within the wider Darlington area there is scope for developing a series of green radial routes linking the urban area with countryside. Such initiatives will also work towards improving the landscape of the urban fringe and providing more attractive and multi-functional countryside.

5 Darlington, Middleton St. George, A66/A67 Corridor to Stockton

A potentially major corridor linking with the River Skerne Corridor in Darlington via the Sustrans route towards Middleton St. George and Durham Tees Valley Airport, the strategic gap between Darlington and Stockton, and the green wedge and River Tees Corridor in the vicinity of Preston Farm and Bowesfield.

6 Preston-on-Tees/Hartburn/Fairfield/Bishopsgarth to Wynyard

A corridor based along the existing Castle Eden Walkway, linking residential areas of west Stockton with Wynyard Woodland Park, Thorpe Thewles and Wynyard. Beyond this the corridor links to an extensive network of cycle ways, footpaths and bridleways in Sedgfield and Hartlepool.

7 Hartburn to Lustrum Beck to River Tees

A potential corridor based on Hartburn and Lustrum Becks, running through a largely urban part of Stockton. The corridor should also integrate with the Green-Blue Heart proposals.

8 Stainsby Beck Valley

A major green corridor from the Tees Barrage and Green-Blue Heart, through Teesside Park, between Thornaby and Middlesbrough, linking into the open countryside. A major new park is proposed along the A66/Whinney Banks housing development site.

9 Billingham Beck Valley

A strategic wildlife corridor linking the River Tees with open countryside along the Billingham Beck Valley and via Billingham Beck Country Park and Gateway site. It forms an important part of the green network creating a setting for both Norton and Billingham. The corridor links into the Green-Blue Heart and wildlife habitats of Portrack Marsh and Maze Park at its southern end.

10 Saltholme to Cowpen Bewley, Wynyard and Hartlepool

A major corridor linking internationally important wetland habitats on the Tees Estuary with the strategic open gap between Billingham and Hartlepool, Cowpen Bewley Woodland Park, and on to Wynyard.

11 Saltholme to Hartlepool Coast

A strategic wildlife corridor between Saltholme Nature Reserve and adjacent internationally important wetland habitats, Teesmouth National Nature Reserve and the coast at Seaton Carew. The corridor provides a setting for major petrochemical facilities at North Tees and Seal Sands.

12 Hartlepool Quays/Town Centre to Summerhill and north west Hartlepool and Hartlepool Western Fringe

An existing green wedge runs from urban Hartlepool into the open countryside via Summerhill Countryside Gateway site. There is potential for creating a continuous and high quality green link from Victoria Harbour and the marina through the town centre into Burn Valley green wedge and beyond Summerhill Gateway site into the surrounding countryside. At Victoria Harbour the corridor should focus on the "Wave" open space concept, and at the Summerhill end the corridor could link north towards the Middle Warren housing development and the green wedge running through Middle Warren, and south towards Greatham.

13 Greater Middlehaven/Middlesbrough town centre/ South Bank/Greater Eston to Redcar

Potentially a key corridor linking Middlehaven and Middlesbrough town centre with housing renewal proposals in the South Bank/Grangetown areas, projects associated with the regeneration of Greater Eston including a new district centre, and running through to Redcar and the coast via Lazenby Bank and Kirkleatham. The eastern end of the corridor will provide a landscape context for

Kirkleatham Business Park and recreation and tourism developments associated with Kirkleatham village, as well as recent housing developments to the south of Redcar.

14 Greater Middlehaven/Middlesbrough town centre/ Marton/Nunthorpe to Guisborough, including the open space network through South Middlesbrough

Largely utilising existing green wedges and beck valleys, this corridor can provide a joined-up green link from Middlesbrough town centre to Nunthorpe and beyond, and will provide a setting for James Cook Hospital and Prissick Scholl Base. The beck valleys collectively form north-south green corridors linking nature conservation sites, recreational areas and woodland and there is much potential to strengthen the corridors and improve east-west links. The strategic corridor also includes strategic open space at Stewart Park and Ormesby Hall, and the network of open space through the residential developments of south Middlesbrough, providing a link with the Stainsby Beck strategic corridor. Much of this area forms part of Middlesbrough's 'Green Lung' - a complex network of open spaces, beck valleys, cycle/footpaths, parks, recreation grounds and playing fields with potential as a major new area for biodiversity, recreation and other development easily accessible to adjoining urban communities. To the south of Middlesbrough there is potential to improve long-distance footpaths and bridleways, with Lingfield Countryside Visitor Centre providing a focus. Beyond Nunthorpe the corridor could link with the Gateway site at Pinchinthorpe and woodland to the south of Guisborough within the North York Moors National Park.

15 Nunthorpe to Wilton via Eston Hills

This corridor provides a link between the Middlesbrough to Nunthorpe corridor and the Middlesbrough to Redcar corridor via the Eston Hills. There is potential for creating a 'greenway' link from Eston towards Redcar and Saltburn.

16 Guisborough to the Coast via East Cleveland Beck Valley Woodlands

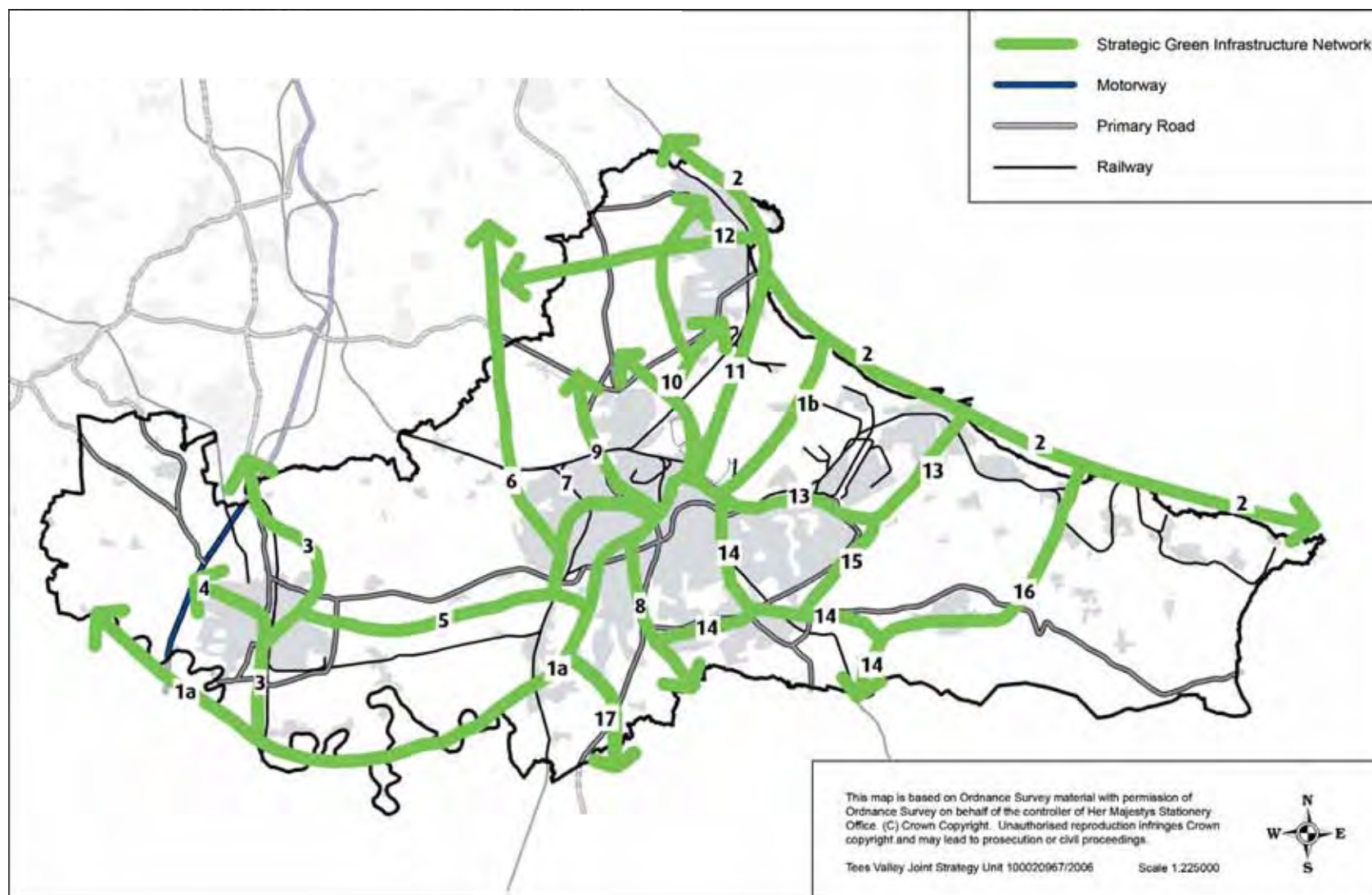
Largely within the North York Moors and Cleveland Hills Natural Area, this corridor is mainly rural and includes a number of substantial woodland areas associated with the beck valleys. The Cleveland Way long distance footpath passes through the area and the coastline east of Saltburn has been designated as a Heritage Coast. Much of the woodland in the beck valleys is ancient semi-natural woodland, and is a significant resource within the Tees Valley.

17 River Leven Corridor

The River Leven runs in a steeply sided valley from the Stockton-on-Tees Borough boundary near Crathorne and Hilton, to join the River Tees near Yarm and Ingleby Barwick. It is generally well wooded but public access is rather limited. As well as being of considerable amenity value, the woodland along the River Leven is also a valuable wildlife habitat.



Map 8: Tees Valley Green Infrastructure Network



Tees Valley Green Infrastructure Strategy

Proposed Network Component Priorities and Actions

1. River Tees Corridor

1a Darlington - Tees Barrage

- Improve access and links into business and housing areas
- Promote a 'heritage' or 'country' park area between Stockton and Yarm
- Resist urban encroachment
- Enhance existing and create new wetland habitats
- Protect and enhance strategic open space in the Yarm, Ingleby Barwick, Preston Farm and Bowesfield areas
- Investigate potential for additional crossing points of the R Tees for walkers, cyclists and horse-riders

1b Tees Barrage - Tees Mouth

- Develop a continuous green link to provide a high quality setting for major regeneration projects
- Improve links into Stockton and Middlesbrough town centres
- Integrate with Green-Blue Heart
- Improve areas of vacant, derelict and under-used land
- Assess extent and value of post-industrial wildlife habitats
- Improve the attractiveness of the Teesdale Way and maximise potential of Middlesbrough's 3 river parks

2. The Coast - Hartlepool to Cowbar

- Adopt Integrated Coastal Zone management principles
- Protect the undeveloped coast and avoid inappropriate development
- Investigate opportunities to enhance the railway corridor on the northern approach to Hartlepool
- Develop a coastal cycle route within Hartlepool
- Integrate key regeneration and tourism developments through improved green space, access and landscaping

- Protect and enhance areas of biodiversity value, and avoid adverse effects on the SPA

- Address issues associated with industrial activity and public access, particularly in the Coatham Marsh/Coatham Sands/South Gare area

3. River Skerne Corridor

- Identify opportunities for enhanced access and landscaping
- Improve links with Central Park and Darlington town centre
- Protect and enhance riverside habitats
- Integrate with proposals in Co. Durham
- Investigate opportunities for habitat creation throughout the urban sections of the corridor and into the countryside

4. River Skerne Corridor To West Park/ Faverdale

- Develop core path networks into surrounding communities
- Investigate scope for additional tree planting and creation of wetland habitats
- Incorporate green infrastructure elements within new development at West Park and Faverdale

5. Darlington, Middleton St. George, A66/A67 Corridor to Stockton

- Maintain open area between Darlington and Stockton
- Improve links with existing open space, business and housing areas
- Prevent urban encroachment into strategic open spaces and strategic gaps
- Investigate potential for additional woodland and wetland creation, particularly in the Hartburn Beck area
- Strengthen links with Preston Park and enhance its 'Gateway' role

- Investigate potential for linking with developments at Durham Tees Valley Airport

- Promote historic heritage
- Extend and develop strategic access routes, particularly between Middleton St. George and Stockton

6. Preston-on-Tees/Hartburn/Fairfield/ Bishopsgarth to Wynyard

- Maintain and extend local access network, including links into Hartlepool and Sedgfield
- Investigate potential for increased planting/ management to increase value of woodland, hedgerows and open space to the local community and for biodiversity
- Develop links with Ropner Park, the proposed West Stockton woodland and the Darlington to Stockton Corridor

7. Hartburn to Lustrum Beck to the River Tees

- Improve access for adjoining residential, commercial and business areas
- Focus on habitat and watercourse restoration and enhancement
- Integrate with Green-Blue Heart

8. Stainsby Beck Valley

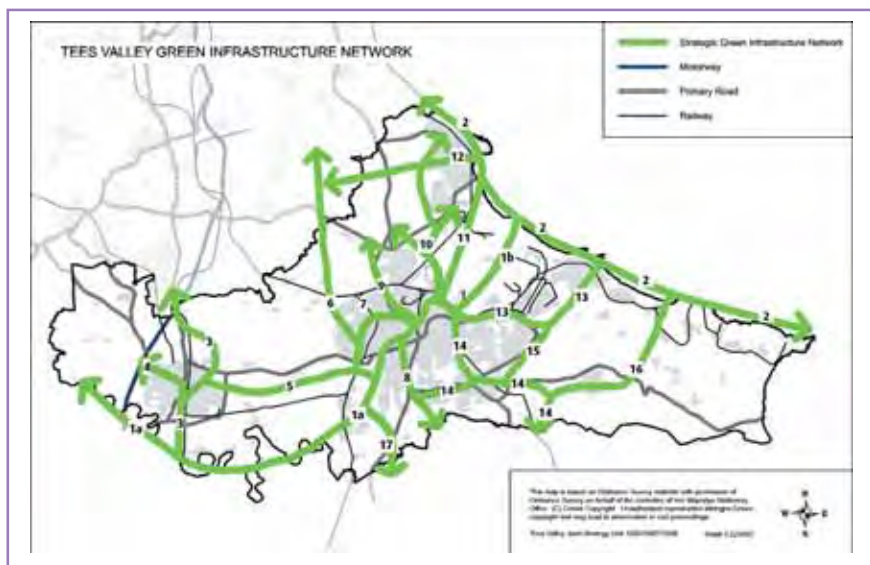
- Establish continuous green link through Teesside Retail and Leisure Park along Stainsby Beck and into the open countryside
- Improve access into adjoining residential areas
- Investigate potential for major new park in the A66 /Whinney Banks housing area
- Investigate scope for enhancing biodiversity, particularly potential for enhancing or creating intertidal habitat
- Protect from urban encroachment

9. Billingham Beck Valley

- Focus on the enhancement and management of existing and creation of new habitats, and development of strategic access
- Investigate opportunities to depollute contaminated soils and water through plants
- Development of strategic access routes, particularly for the local community at the R Tees end and forwards Wynyard

10. Saltholme To Cowpen Bewley, Wynyard and Hartlepool

- Protect, enhance and create habitats in accordance with the objectives of Saltholme Nature Reserve, SSSI/SPA objectives, and LBAP priorities
- Investigate scope for further planting between Billingham and Hartlepool, and link with Cowpen Bewley Woodland Park
- Develop strategic access routes, particularly from residential areas of north Billingham and south Hartlepool and adjacent employment areas
- Implement the N Gare to Greatham section of the Hartlepool rural cycle way/ walkway
- Develop a cycle route between Greatham and Cowpen Bewley
- Investigate potential for estuarine woodland creation
- Incorporate proposals for improving the environment of the Southern Industrial Zone in Hartlepool



11. Saltholme to Hartlepool Coast

- Protect, enhance and manage statutory nature conservation sites, and improve adjacent areas to support interest features of the SPA
- Develop a cycle route between N Gare and Transporter Bridge
- Investigate opportunities to enhance the railway corridor on the southern approach to Hartlepool
- Complement proposals for improving the visitor attraction of Seaton Carew
- Protect and enhance non-statutory (local) nature conservation sites
- Investigate potential for improving access, particularly new cycleways and footpaths

12. Hartlepool Quays/Town Centre To Summerhill, North West Hartlepool and Hartlepool Western Fringe

- Develop high quality green link from Victoria Harbour and Marina through the town centre towards Summerhill Gateway site and the surrounding countryside

- Integrate with green infrastructure elements at Middle Warren
- Improve access into adjoining residential areas and develop cycle links into the proposed Hartlepool Rural Cycle route, including the western fringe of Hartlepool
- Investigate opportunities to naturalise Burn Valley Gardens beck
- Investigate opportunities for exploiting the geo-diversity value of Hart Quarry

13. Greater Middlehaven/Middlesbrough Town Centre/South Bank/Greater Eston to Redcar

- Incorporate significant green infrastructure elements into housing renewal schemes and regeneration projects
- Investigate opportunities to provide new, and improve existing, footpaths and cycleways
- Investigate scope for increased woodland planting in line with Tees Forest and LBAP objectives

- Consider ways of improving and managing access on and around the moorland of the Eston Hills
- Integrate with new developments in the south Redcar and Kirkleatham areas

14. Greater Middlehaven/ Middlesbrough Town Centre/Marton/Nunthorpe To Guisborough

- Investigate increased woodland planting in line with Tees Forest and LBAP objectives
- Investigate opportunities to utilise the beck corridors for small scale woodland/ wetland linear mosaics
- Investigate potential for enhanced biodiversity, recreation and other developments in Middlesbrough's 'Green Lung'
- Develop core access networks linking surrounding communities and investigate scope for long distance bridleways and footpaths into the countryside in conjunction with Lingfield Countryside Visitor Centre
- Investigate potential for country park in south Middlesbrough
- Investigate opportunities to reduce local deficiencies and rationalise suitable land for development
- Ensure careful integration of transport improvement proposals
- Investigate potential for improving access between the conurbation and the countryside/woodland around Guisborough

15. Nunthorpe To Wilton Via Eston Hills

- Potential for managing and extending access from residential areas, particularly towards the Eston Hills
- Investigate potential for creating a 'greenway' link from Eston towards Redcar and Saltburn and improve links into the North York Moors National Park
- The Eston Hills provide a significant resource for recreation and biodiversity but sensitive management is needed to avoid disturbance to habitats.

- Investigate potential for exploiting the industrial heritage of the Eston Hills

16. Guisborough To The Coast Via East Cleveland Beck Valley Woodlands

- Opportunities to create new access routes and links to surrounding areas utilising the beck valleys and disused railway lines should be investigated
- Investigate opportunities for promoting activity tourism such as cycling, horse-riding, walking, and natural history
- Investigate opportunities for creating 'buffer zones' along the upper beck valley slopes to protect and enhance the woodland value
- Explore opportunities for exploiting the industrial history of the East Cleveland area

17. River Leven Corridor

- Improved access opportunities should be investigated, particularly into the River Tees Corridor but care is needed to avoid habitat disturbance
- Consideration should be given to providing a new river crossing for walkers, cyclists and horse-riders
- Scope for additional planting and woodland management to enhance the nature conservation interest should be investigated



Guisborough Priory - Redcar & Cleveland
Photo by visitTeesvalley

Moving The Strategy Forward

- 9.1 The Green Infrastructure Strategy sets out a vision for an improved quality of urban environment and closer links between the conurbation and main towns and the surrounding countryside. Although developed very much at a strategic level, the Green Infrastructure Strategy will be taken on board and developed further by the plans, programmes and strategies of the individual local authorities and other key stakeholders. Often the most appropriate level for the promotion of actions will be through Local Development Frameworks and other local authority greening initiatives such as green space strategies. However actions and principles will also need to be embedded into the approaches that are adopted for economic regeneration and development projects as well as programmes and strategies of key organisations in both the public and private sectors.
- 9.2 The social, economic and sustainable development arguments for investing in green infrastructure are strong. There is a need to develop an innovative approach to delivery, investment, promotion and marketing that matches the scale of the issues facing the Tees Valley.
- 9.3 Partnership working is likely to be the key to implementation. Delivery partners are likely to range from European and national government and their agencies, local authorities, developers, voluntary organisations and community groups.
- 9.4 The Green Infrastructure Strategy promotes a high quality environment that in turn should promote high quality development. High quality environments can lead, over a period of time, to higher land and property values. Some investigation should be undertaken into ways of capturing back some of that rise in value, not only to pay back early capital investment but also to ensure adequate funding for long term management and maintenance. This should help to encourage investor confidence.
- 9.5 Investment in green infrastructure will require a range of funding mechanisms, including continuing public sector investment and public/private partnerships. It is unlikely that the capital and revenue cost of green infrastructure could be achieved entirely through public sector funding. Much of the delivery of green infrastructure will be achieved through the development process. Development control in particular is often seen as providing opportunities for delivery through direct developer contributions, but further investigation will be needed into the most practical ways of achieving this.
- 9.6 It is essential that key organisations co-ordinate efforts to attract funding over the long term to resource green infrastructure that will deliver the environmental improvements necessary to achieve the vision for economic growth and regeneration throughout the Tees Valley. Acknowledging the multi-functional nature of green infrastructure may also help to secure funding in the long term.

9.7 An Implementation Plan will be prepared setting a delivery framework for the Green Infrastructure Strategy. The Implementation Plan will show how the key partners and agencies involved will support the delivery of green infrastructure and contribute to the aims of the Strategy.

9.8 In particular the Implementation Plan will:

- Summarise the principal existing and planned green infrastructure projects and initiatives;
- Identify gaps and new opportunities;
- Provide an indicative timescale for implementation;
- Identify potential funding sources, and
- Set out arrangements for monitoring progress and reviewing priorities

9.9 Appendix 3 lists some of the key partners for green infrastructure implementation and provides an indication of possible sources of funding.



Photos by Stockton-on-Tees Media Store



Photo by Mike Kipling

Photo by Hartlepool Borough Council



Appendix 1

National, Regional and Sub-regional Policy Context

i) National and Regional Policy

The protection and improvement of the environment is a keystone of the Government's sustainable development principles. **Planning Policy Statement 1 (PPS1) 'Delivering Sustainable Development'** recognises that the condition of our surroundings has a direct impact on the quality of life, and that the improvement of the natural and built environment brings social and economic benefit for local communities. PPS1 states that planning should seek to maintain and improve the local environment and help to mitigate the effects of declining environmental quality through positive policies on issues such as design, conservation and the provision of public space. A Green Infrastructure Strategy would contribute in a positive way to such environmental improvement.

Planning Policy Guidance Note 17 (PPG17) 'Planning for Open Space, Sport and Recreation' sets out the Government's guidance on planning open spaces, sports and recreational facilities, and the need to ensure they are of a high quality, attractive to users, well managed and maintained.

Planning Policy Statement 9 (PPS9) 'Biodiversity and Geological Conservation' refers to the role of networks of habitats that can link sites of biodiversity importance and provide routes for migration and dispersal of different species. Such networks should be protected from development, and the PPS suggests that this could be done as part of a wider

strategy for the protection and extension of open space. A Green Infrastructure Strategy is an appropriate way of achieving this and contributing to biodiversity objectives.

English Nature, through its work on **Accessible Natural Greenspace Standards**, has produced a model setting out its recommended standards for the provision of greenspace and its accessibility by local residents and the wider community. While setting and implementing standards is principally a role for the local authorities in local development frameworks and other strategies, a Green Infrastructure Strategy would complement and help to implement such standards.

The Countryside Agency, in its publication **'The countryside in and around towns'**, also supports the concept of green infrastructure. The document outlines a vision of networks of new and improved parks, woodlands and other green spaces that are linked to urban centres and the wider countryside by footpaths, bridleways and cycle ways. Urban parks, country parks and other green spaces would be joined up to form continuous green corridors between town and country.

Regional Planning Guidance for the North East (RPG1, November 2002 - the current the Regional Spatial Strategy) recognises the need to improve the region's environment in both urban and rural areas through initiatives such as the Communit Forest, and seeks to improve the quality and, where necessary, quantity of accessible recreational and amenity open space. Policy ENV10 states that development plans and other strategies should:

- Protect land which serves a strategic function from unnecessary development, even where not formally designated as open space;
- Ensure that the strategic role of linked and linear open spaces is maintained, enhanced and, where possible, extended, and
- Identify valuable areas of open land, which are not formally open space, for more active management through urban fringe initiatives.

RPG1 is currently being reviewed and will be replaced by a revised Regional Spatial Strategy (RSS) for the North East. The submission draft RSS gives a high degree of priority to improving the environment. Policy 2 of the RSS contains a specific environmental objective 'to promote the concept of green infrastructure - a network of linked, multifunctional green space in and around the region's towns and cities. Policy 10 is even more specific and states that 'strategies, plans and programmes should support the establishment of strategic networks of green infrastructure that links existing and proposed woodland hubs with green corridors running through urban, suburban, urban fringe, and rural areas.' The Report of the Examination in Public Panel was published in July 2006. The Panel has recommended further strengthening of references to green infrastructure in RSS and is proposing that policy 7 on the Tees Valley City Region include the statement "supporting the establishment of strategic networks of green infrastructure, including green wedges, that links existing and proposed green space with green corridors running through urban, suburban and urban fringe areas to the countryside and coast." The Panel's recommendations on green infrastructure

have been supported and reflected by the Secretary of State in the Proposed Changes to the RSS issued for consultation in May 2007. The revised RSS is likely to be approved by the Secretary of State early in 2008.

'Sustainable Communities: Building for the future' (ODPM) is a national plan marking a step change in building and maintaining sustainable communities throughout the UK. A daughter document 'Sustainable communities in the North East' (ODPM 2003) builds on the theme of creating a well-designed, accessible and pleasant living and working environment, and recognises the priority that needs to be given to improving the quality of the local environment, especially in deprived areas.

Emerging from the publication in February 2004 of the Government's Sustainable Communities Plan, the Northern Way Growth Strategy sets out how the North could unlock potential for faster economic growth. The Northern Way's Business Plan (Moving Forward: The Northern Way, Northern Way Steering Group June 2005) builds on the theme of creating sustainable communities, and recognises that a key activity in achieving economic success is to raise the quality of our places. Further detail on the role and importance of green infrastructure in city regions can be found in the report 'City Region Green Infrastructure Planning' produced for the Northern Way by consultants Ecotec. A more recent Northern Way report - Shaping the North's Cities for Growth: and agenda for the next decade - recognises the role of green infrastructure in determining the quality of place.

The Regional Economic Strategy (Leading the Way - One NorthEast, July 2006) recognises that priority must be given to providing high quality natural, heritage and cultural environments that have the capacity to retain, attract and develop skilled workers, entrepreneurs, graduates and visitors. The Strategy states "The region's green spaces are a vital asset, particularly in the context of increasing development pressures. As well as being crucial in maintaining our biodiversity and ecosystems, green spaces have been termed the 'green lungs' of our towns and cities, contributing to improving people's physical and mental health by providing places for informal recreation and 'breathing spaces' to take time out from the stresses of modern life. Our green infrastructure is increasingly recognised as being a key component of sustainable communities. It is critical that the benefits of these public assets are maximised through sound planning and management."

ii) Sub-Regional Policy

Until the Regional Spatial Strategy is adopted (probably in 2008), the **Tees Valley Structure Plan** (Darlington, Hartlepool, Middlesbrough, Redcar & Cleveland, and Stockton-on-Tees Borough Councils, Tees Valley Joint Strategy Unit February 2004) provides a strategic context for development and for the protection and enhancement of the environment. The Structure Plan acknowledges the image problem suffered by the Tees Valley over many years and recognises the importance of securing improvements to the quality of the environment for the benefit of people who live and work in the area, as well as helping to attract potential visitors and investors. The Structure Plan contains several policies aimed at

protecting and improving the environment in both urban and rural areas. Of particular relevance to the Green Infrastructure Strategy are those designed to:

- tackle the problems of urban decay, redevelop and regenerate rundown areas and improve the environment (policy REG1)
- encourage and assist measures to improve biodiversity (ENV3a)
- maintain and enhance strategic wildlife corridors (ENV8)
- retain a series of green wedges within the built up areas for open land uses (ENV14)
- retain strategic gaps between individual settlements (ENV15)
- increase woodland cover (ENV16)
- ensure that new development enhances the environment and improves quality of life (ENV17)
- improve urban fringe areas, including provision of open space, landscaping and tree planting (ENV18)
- improve the urban environment through landscaping, management and tree planting (ENV21)
- restoration of derelict and unused land (ENV22)
- support measures to conserve, restore and enhance the natural elements of watercourses and waterside areas (ENV25)

- ensure that the environment of housing areas is of good quality (H8)
- provision of a strategic network of greenways and cycle routes (T4, T7)
- improving access to the countryside through a network of greenways, footpaths, cycleways and bridleways, providing links between towns, villages, the countryside and open spaces within towns (L4)
- provision of gateway sites to provide links between the urban area and the Tees Forest (L5)

The Green Infrastructure Strategy will provide a way of taking forward many of the policies and initiatives outlined in the Structure Plan.

The **Stockton Middlesbrough Initiative** (SMI) was established to provide a competitive economic core for the Tees Valley city region. There are four key stages to the SMI's development framework:

1. Expanding the urban centres, with Middlesbrough moving to the west and north, and Stockton spreading to the east and south
2. Creation of a green-blue heart - the concept of a green-blue heart running along the River Tees joining Stockton and Middlesbrough is central to the SMI. The area will be transformed to create opportunities for major environmental, leisure and sports assets as well as providing a new and attractive setting for development and encouraging people back into the urban area
3. Connectivity and Infrastructure - improving the links between the two towns and the wider Tees

Valley, with emphasis on public transport and a more effective strategic highway network

4. Development, with a focus on key developments that add value to the Tees Valley. Development will initially be concentrated in the urban centres, moving into the inner core of the River Tees facilitated by the green-blue heart.

Clearly the Green Infrastructure Strategy can support the Stockton Middlesbrough Initiative, and indeed the green-blue heart can provide a major focus of a green network linking into the wider Tees Valley sub-region.

The **Coastal Arc Strategy** forms an ambitious economic regeneration programme for the Tees Valley coast, and is being developed as a partnership between Hartlepool and Redcar & Cleveland Borough Councils.

The Coastal Arc invests in strategic projects that will have a significant impact on the economic performance of the Tees Valley coast, creating new jobs and growth opportunities. These include:

- The Hartlepool Quays concept, creating a critical mass of attractions and facilities. It comprises the Marina, town centre, historic Headland, and Victoria Harbour;
- Improving and enhancing the Hartlepool's Southern Industrial Zone, and enhancing the visitor offer at Seaton Carew;
- Major mixed use development at Coatham Enclosure, Redcar and improvements to Redcar town centre and seafront; and

- Enhancements at Saltburn and marketing industrial heritage and countryside in East Cleveland

The **Tees Forest**, one of 12 Community Forests in England, was established to achieve major environmental improvements around the conurbation and towns of the Tees Valley sub-region. It covers an area of over 350 sq. kilometres and is accessible to almost 1 million potential users within and adjacent to the sub-region.

One of the principal objectives of the Tees Forest is to develop, in conjunction with the Countryside Agency, the concept of 'connected countryside' - securing good inter-connection between built up areas and the countryside. Gateways, which provide access points to the Tees Forest for the local community, and Greenways, which are off road routes radiating from Gateways connecting to open spaces and the countryside around built up areas, are key elements to the connected countryside concept.

The Tees Forest will form a major part of the green infrastructure network for the Tees Valley, and the Green Infrastructure Strategy will complement the aim and objectives of the Tees Forest Strategy.

The **Tees Valley Biodiversity Action Plan** covers the local authorities of Hartlepool, Middlesbrough, Redcar and Cleveland, and Stockton-on-Tees. Darlington is included within the Durham Biodiversity Action Plan, and there is a draft Biodiversity Action Plan for the North York Moors. These local biodiversity action plans contain a series of habitat and species action plans

designed to restore, maintain and enhance levels of biodiversity in the Tees Valley, particularly those that are threatened or are in decline.

Local biodiversity can benefit from a Green Infrastructure Strategy in a number of ways, including:

- Through the provision of a more extensive network of green corridors, based on existing wildlife corridors;
- Identifying and helping to bridge gaps in the corridor network;
- Helping to address some of the problems caused by the fragmentation of existing habitats, and
- Providing more opportunities for habitat creation and enhancement.

Appendix 2

Plan/Strategy	Policy/Initiative	Link to Green Infrastructure
Regional Spatial Strategy for the North East - Draft Revision and Secretary of State's Proposed Changes	<p>Policy 2 - promotes the concept of green infrastructure in and around the Region's towns and cities.</p> <p>Policy 7 - supports the establishment, in the Tees Valley, of strategic networks of green infrastructure running through urban, suburban and urban fringe areas to the countryside and coast</p>	<p>Recognises the importance of green infrastructure at a Regional level.</p> <p>Provides the over-arching support for the development of a Green Infrastructure Strategy for the Tees Valley, and for green infrastructure to be included within local development frameworks.</p>
Tees Valley Structure Plan	<p>Policy ENV8 - Maintain and enhance strategic wildlife corridors.</p> <p>Policies ENV10-12 - Protection of archaeological sites, historic landscapes, and the character and settings of listed buildings and conservation areas.</p> <p>Policy ENV14 - Retain green wedges within built up areas for open land uses.</p> <p>Policy ENV15 - Retain strategic gaps between settlements.</p>	<p>Formally brought the strategic wildlife corridor network into the development plan system.</p> <p>The Tees Valley's heritage assets should form an integral part of the green infrastructure network.</p> <p>Green wedges of open land extend into the Teesside conurbation and main towns from the surrounding countryside. They provide considerable opportunity for improved access to open space, leisure activities, and the countryside from both residential areas and work places.</p> <p>Strategic gaps ensure that open countryside is maintained between individual settlements and between the conurbation and main towns and surrounding settlements. Their primary purpose is to prevent urban coalescence and sprawl and to contribute to urban regeneration, but they also provide good opportunities for countryside activities close to where people live.</p>

Plan/Strategy	Policy/Initiative	Link to Green Infrastructure
	<p>Policy ENV25 - Conserve, restore and enhance watercourses and waterside areas</p> <p>Policies T4 & T7 - Strategic network of greenways and cycle routes.</p> <p>Policy L4 - Improving access to the countryside through a network of greenways, cycleways & bridleways.</p> <p>Policy L5 - Provision of gateway sites.</p>	<p>Restoration and enhancement schemes for watercourses, often in conjunction with new development, provide opportunities for improving access and creating new habitats and landscape. A good example is the River Skerne project in Darlington.</p> <p>Strategic cycle routes, including parts of the Sustrans network, provide a number of direct links between housing areas, workplaces and open spaces. The greenway network, which is largely off road, connects facilities and open spaces in and around towns to the countryside.</p> <p>Existing paths, bridleways and cycle routes provide the most important means of getting into, enjoying and understanding the countryside and coast</p> <p>Gateways, developed in conjunction with the Tees Forest, provide access points to the countryside and Tees Forest where facilities, depending on location, can range from built provision or parking to basic signs and information.</p>
Cleveland Wildlife Strategy	<p>Policy NC3 - introduced the concept of wildlife corridors. Three types of corridor identified:</p> <p>Strategic / Local/ Wildlife links</p>	<p>Wildlife corridors can form the basis of a green infrastructure network. They can provide links between isolated wildlife and other sites with the surrounding countryside.</p>
Local Plans/Local Development Frameworks	<p>Local plans, and the emerging local development frameworks, prepared by the Tees Valley local authorities develop the broad strategic policies and proposals in the Tees Valley Structure Plan and Regional Spatial Strategy in more detail.</p>	<p>Specific, detailed proposals on, for example, the amount of open space, protection of nature conservation sites, boundaries of green wedges and limits to urban development.</p>

Plan/Strategy	Policy/Initiative	Link to Green Infrastructure
Local/District-wide Green Space Audits and Strategies	All Tees Valley local authorities have prepared or are preparing open space audits and/or Green Space Strategies. Such local audits and strategies provide a context for improving the management and maximising the benefits of green spaces; help to co-ordinate action between partners; and help to promote green space investment as a policy priority.	Open space audits take stock of the existing situation. Strategies are more aspirational, looking to the future and contain recommendations for the management and improvement of green space over time. Strategies can be prepared at different levels - regional, sub-regional, district, neighbourhood - but need to link together in a co-ordinated way. The Tees Valley Green Infrastructure Strategy identifies the priorities at sub-regional level, driven by the economic benefits of improving the environment and creating sustainable communities. Local green space strategies can develop these priorities at local level and show how local communities can benefit.
North York Moors National Park Management Plan	The Management Plan shows how the aims and functions of the National Park can be achieved. These include conservation of the natural environment and cultural heritage, and recreation management.	Its proximity means that the National Park is a major attraction for residents in the Tees Valley. Improving links with the Park, whether this is through better footpath and cycle networks or enhanced wildlife corridors will be beneficial and will help to strengthen the green infrastructure network.
Tees Valley Local Biodiversity Action Plan and Durham Local Biodiversity Action Plan	Local Biodiversity Action Plans contain a number of habitat and species action plans designed to restore, maintain and enhance levels of biodiversity.	Biodiversity can benefit from green infrastructure in several ways, including: <ul style="list-style-type: none"> • More extensive green corridors based on existing wildlife corridors • Bridging gaps in the corridor network • Address issues caused by fragmentation of habitats • More habitat creation and enhancement opportunities

Plan/Strategy	Policy/Initiative	Link to Green Infrastructure
Tees Valley Climate Change Strategy	<p>The Climate Change Strategy identifies a number of actions and initiatives designed to promote efficient energy use and reduce emissions.</p> <p>Relevant actions include:</p> <ul style="list-style-type: none"> ● Sustainable construction methods ● A safe and convenient walking and cycling network ● An increase in tree and vegetation cover 	<p>The Green Infrastructure Strategy has an important role in supporting and complementing the Climate Change Strategy. As well providing more opportunities for tree and other planting, the Green Infrastructure Strategy also refers to opportunities such as new water bodies to cope with increased storm water run-off, and the principles of sustainable drainage systems.</p>
The Tees Forest Plan	<p>The Tees Forest Plan is the largest environmental initiative in the sub-region and will create a well-wooded landscape that is worked and lived in.</p>	<p>The Forest strategy contains many elements that will support, and be supported by, a green infrastructure network. These include:</p> <ul style="list-style-type: none"> ● Woodland extension and restoration ● Increase biodiversity and enhance environmental capital ● Secure a hierarchy of primary, secondary and tertiary gateways ● Develop a network of greenways to promote access to the countryside and foster more healthy lifestyles ● Develop the concept of 'connected countryside', securing good interconnection between the town and the countryside
Shoreline Management Plan 2: River Tyne to Flamborough Head	<p>The Shoreline Management Plan exists to promote good and prudent coastline management. It sets out preferred policies to safeguard the natural and human environments and provide options for considering the planning and implementation of sea defences and other maritime works.</p>	<p>The coastline is an integral part of the green infrastructure network. There are likely to be opportunities from coastal defence and other maritime works for enhancing and/or incorporating green infrastructure elements</p>

Plan/Strategy	Policy/Initiative	Link to Green Infrastructure
Equestrian Leisure Sector Strategy	One of the purposes of the strategy was to highlight the contribution of the equestrian leisure sector to social cohesion, wellbeing & environmental sustainability.	<p>Elements of the strategy of relevance to a green infrastructure network include:</p> <ul style="list-style-type: none"> ● Development of a Tees Valley Trail to wrap around the conurbation and connect into Co. Durham and the North York Moors ● Investigate the feasibility of an extensive tolled route system exclusively for horse riders
Tees Valley Cycling Strategy	The Strategy aims to encourage more cycling, and its objectives include improving the environment and the health of the community.	The development of a safe and convenient network of strategic cycle routes having due regard to the natural environment is a key element. Such routes can form an integral part of a green infrastructure network.
Stockton Middlesbrough Initiative	One of the key elements of the SMI is the creation of the 'green-blue heart'. This is a radical proposal to exploit the potential of the River Tees corridor between Middlesbrough and Stockton, and set the Tees Valley City Region apart from its competitors.	The River Tees Corridor will be a focus for regeneration activity in the Tees Valley and as such should be a focus for the green infrastructure network.
River Tees Strategy	<p>The Strategy has three aims:</p> <ul style="list-style-type: none"> To capitalise on the potential of the river corridor to act as a focus for regeneration; To redefine the river as a primary resource and landscape asset at a strategic level To develop a development and landscape framework to allow a coordinated approach to managing change. 	<p>There are many elements to the strategy that support and are complementary to a green infrastructure network, including:</p> <ul style="list-style-type: none"> ● Improving access to the river corridor and adjacent areas ● Providing environmental improvements ● Safeguarding and enhancing landscape, heritage & ecological assets ● Providing guidance on design and key issues for development briefs

Plan/Strategy	Policy/Initiative	Link to Green Infrastructure
Coastal Arc Strategy	The Strategy is an ambitious regeneration programme for the Tees Valley Coast, and is a partnership between Hartlepool and Redcar & Cleveland Borough Councils. The Coastal Arc aims to harness the potential of the Tees Valley's links with the sea.	The Coastal Arc Strategy will have a significant impact on green infrastructure along the whole of the coastline, including schemes such as Victoria Harbour in Hartlepool, and Coatham Enclosure in Redcar.

Appendix 3

Implementing Green Infrastructure

This appendix considers in more detail who the key partners in the delivery of the Green Infrastructure Strategy are likely to be, and the potential funding and delivery mechanisms available to them. It is not intended to be a comprehensive review as many of the potential funding sources in particular will require further investigation through a more detailed Implementation Plan.

A partnership of local authorities, statutory and non-statutory agencies and organisations will need to play a lead role in taking the Green Infrastructure Strategy forward. This approach will require a clear identification of roles and responsibilities, along with the setting and monitoring of actions and targets. The following table identifies key statutory and non-statutory organisations that are likely to be the principal delivery partners together with an indication of their potential roles.

Key Partners	Main Delivery Role
Tees Valley local authorities (Darlington, Hartlepool, Middlesbrough, Redcar & Cleveland, and Stockton-on-Tees Borough Councils) and Joint Strategy Unit	<p>Embedding of the Green Infrastructure Strategy into the emerging Local Development Frameworks will provide the core spatial strategy and policy framework for supporting and co-funding green infrastructure delivery.</p> <p>Local authorities should also ensure that green infrastructure principles are incorporated in site specific plans such as master plans and development briefs and proactively engage with developers to exploit potential.</p> <p>Local authorities should provide specific support and guidance for individual projects within their area.</p> <p>Local Strategic Partnerships for the local authority areas will also provide an important delivery vehicle to initiate projects and opportunities, particularly through the work of sub-groups focussed on environmental issues.</p> <p>The Joint Strategy Unit should be a key driver at sub-regional/city region level for the context for delivery of green infrastructure. Also cross-boundary co-ordinator.</p>
North York Moors National Park Authority	Through its Local Development Framework and Management Plan
Tees Valley Regeneration	Focus on delivery of green infrastructure through master planning and implementation of key regeneration projects.

Key Partners	Main Delivery Role
North East Assembly (Regional Planning Body)	Regional policy formulator and integration of Green Infrastructure Strategy and principles into the Regional Spatial Strategy
Environment Agency	Focus on flood risk management proposals that work with and can deliver green infrastructure opportunities
Natural England; English Heritage; Forestry Commission	Focus on delivery of green infrastructure aims through regional and sub-regional plans, programmes and strategies. For example integration with Character Area and Natural Area approach; historic landscapes, parks and gardens; promotion of projects that deliver regional and sub-regional priority habitats; Forestry Strategy; protection and enhancement of existing resource assets.
Tees Valley Biodiversity Partnership	Integration and co-ordination with species and habitat action plans.
Tees Forest	The Tees Forest is a project delivered through North East Community Forests; the main delivery role is to implement the Tees Forest Plan and focus on site specific green infrastructure delivery.
Tees Valley Wildlife Trust; Groundwork Trust	Focus on site specific green infrastructure delivery; protection and enhancement of existing assets
Developers; Landowners	Site specific green infrastructure delivery in line with policy framework and guidance.

In the Growth Areas of the South East the underlying premise of green infrastructure delivery is that the amount of new development will drive both the need for and mechanism of delivering environmental improvement over the next 25-30 years, and will encompass improvement of both the existing green resource and the creation of new green infrastructure. However in the Tees Valley it is unlikely the development or regeneration projects will deliver the investment required to implement

the Green Infrastructure Strategy. A range of funding mechanisms will be needed and it is likely that different packages will be required to meet different circumstances and particular projects. Some of the possible sources of funding for green infrastructure are identified below. However this list is not necessarily exhaustive and potential options and funding streams will require further and more detailed investigation.

Planning conditions - for example requiring a developer to provide and manage greenspace for a new community or development. Guidance on approach and levels of provision should be provided in local plans and LDFs.

Section 106 Agreements - used to secure developer-funded initiatives that are closely related to a proposed development, for example open space requirements or recreation/sports facilities. Funding of new strategic open space from 106 monies should be directly related to local authority policies and published standards. In order to make adequate provision capital costs for implementation and a commuted sum for maintenance during an establishment period need to be agreed.

Planning Gain - the Government is considering the introduction of a planning gain supplement as an alternative to Section 106, for funding strategic development and community facilities. Green infrastructure projects could be eligible.

Local Area Agreements - central government funding to local authorities via the Local Area Agreement mechanism. Covers capital and revenue costs. Local authorities determine their own priorities.

Charitable Trusts - could be established to manage individual projects or a range of facilities. Trusts may be established through a variety of sources, including Section 106 Agreements.

Big Lottery Fund - could be a major potential source of funding over the next few years through the Access to Natural Environment workstream. An estimated £600 - 700 million a year nationally to 2009. Environmental grants include green spaces and creating sustainable communities.

Heritage Lottery Fund - could be a funding source for some green infrastructure projects, for example landscape heritage.

Landfill Community Fund (formerly the Landfill Tax Credit Scheme) - has considerable potential to fund the creation and management of green spaces for public amenity or biodiversity.

SITA Trust - through the Enriching Nature programme; large projects are assessed and prioritised by the NE Regional Biodiversity Forum although the final decision is with SITA Trust. Projects must be within 10 miles of a landfill site and 10% 3rd party funding is required. There are 2 funds - a large fund for projects up to £175,000 and a small fund for projects up to £25,000.

Agri-environment and Woodland grants - administered by the Rural Development Service of DEFRA (now part of Natural England), and the Forestry Commission. Potential to enhance biodiversity, landscape quality and public access on privately owned farmland.

A recent CABE publication - Paying for parks: Eight models for funding urban green spaces - examines possible long term solutions to improving and maintaining green spaces. The eight models examined are:

- **Traditional local authority funding** - provides a relatively stable source of funding, but annual funding arrangements can create uncertainty and ring-fencing is difficult
- **Multi-agency public sector funding** - from a range of government departments and agencies. and encourage partnerships, but there can be competition for resources from other areas

- **Taxation incentives** - more popular abroad where levies on property, or tax credits, can be ring-fenced to fund the management and provision of green space. However English local authorities have limited autonomy and freedom to impose additional local taxes
- **Planning and development opportunities** - planning agreements can ensure funding for the provision and management of green space in and around new residential and commercial developments. Can provide steady funding which is secured at the outset but can only be used for new development and is susceptible to competition from other types of infrastructure
- **Bonds and commercial finance** - in some countries local businesses and residents can vote to allow the local authority to receive loan funding from bonds that can be repaid to fund urban green space. However English local authorities are currently not permitted to issue voter-approved bonds
- **Income-generating opportunities** - opportunities for generating revenue income, such as licensing and franchising, sponsorship, entry fees etc. are ways in which funding from the private sector and users of green space can be sourced
- **Endowments** - provide long-term funding for green space from the interest gained on investments in assets such as property or the stock market. However may not be practical to operate within a local authority context

- **Voluntary and community sector involvement** - not-for-profit organisations and voluntary and community groups can contribute time and labour, raise funds and encourage community development and local ownership of green space

The report concludes that a range of very different approaches can be used to fund green space, and a one-size-fits-all approach is unlikely to work. However whichever approach is taken it is important to establish dedicated funding and management arrangements at the start. Successful urban green space funding is often underpinned by a strategic approach to funding and management that incorporates a portfolio of different funding sources, mechanisms and partnerships.

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The Cleveland Way
Photo by visitTeesvalley



A19 Leven viaduct
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Preston Park - Stockton-on-Tees
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