

Hartlepool Local Development Framework

Hartlepool Green Infrastructure

Supplementary Planning Document





February 2014

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Hartlepool Green Infrastructure SPD

Introduction

What is Green Infrastructure?

There are a number of definitions of green infrastructure (GI) but for the purposes of this SPD one has been adapted to more closely reflect GI within Hartlepool:

"GREEN INFRASTRUCTURE IS THE BOROUGHS LIFE SUPPORT SYSTEM – THE NETWORK OF NATURAL ENVIRONMENTAL COMPONENTS AND GREEN AND BLUE SPACES THAT LIES WITHIN AND BETWEEN THE TOWNS AND VILLAGES WHICH PROVIDES MULTIPLE SOCIAL, ECONOMIC AND ENVIRONMENTAL BENEFITS."

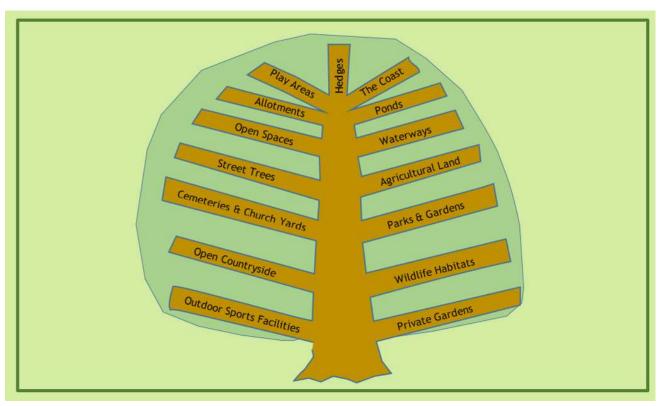
Green infrastructure planning involves the provision of strategically planned networks that link existing (and proposed) green spaces with green corridors running through urban, suburban, urban fringe, and rural areas. Through the maintenance, enhancement and extension of these networks multi-functional benefits can be realised for local communities, businesses, visitors and the environment. Appropriate strategies, plans and programmes led by the Council and involving local partnerships and individual organisations can help to maintain existing green infrastructure, and promote solutions to remedy deficiencies and create new opportunities.

What is the Purpose of the SPD?

This document sets out the future strategy for the development of GI within Hartlepool by assessing the town's current GI and looking at areas which can be improved and where there are gaps in the current provision which need to be addressed in the future, ensuring a green and sustainable future for the town.

Diagram 1, on the following page, illustrates the types of physical components which link together to form GI. Through looking at these green components in a comprehensive way and recognising that they are all intrinsically linked, this strategy will help to ensure that critical elements are not only protected but are also joined together, where possible, to help to develop the networks of GI within the Borough.

This Supplementary Planning Document (SPD), once adopted, will form part of the Local Development Framework, linking with the Hartlepool Local Plan to drive forward the development of GI in the town. It will enable the Council, driven forward by a GI working group, to seek funding to help implement distinct elements of the Action Plan contained within the SPD. The Council will ensure that the SPD stays relevant and up-to-date through monitoring and review.



(Diagram 1: The Components which form Green Infrastructure in Hartlepool)

Who Benefits from Green Infrastructure?

Due to the multi-functional nature of GI, it is capable of delivering a range of benefits in a variety of different situations. One such example would be to consider the value of GI in areas of deprivation where people suffer from higher levels of ill health – in such areas the delivery of high quality GI can contribute to improving wellbeing both through recreational opportunities but also products of that GI such as fruit and vegatables. Other benefits of a well planned and managed GI include:

- Improved image: helping to attract businesses and inward investment
- Greater sense of place and pride in local area
- Mitigates for the effects of climate change, e.g. flood alleviation, carbon storage, cooling urban heat islands
- Woodland planting delivers benefits such as sequestration of carbon from atmosphere and improvement to air quality
- Health and wellbeing benefits through places for outdoor relaxation, play, recreation and exercise
- Encourages active and sustainable travel by providing cycle and walking routes
- Increased local food and renewable energy production
- Reduced crime and antisocial behaviour.

• Eco System Services, such as the production of food and water and regulating effects such as the control of climate and disease

Green Infrastructure provision is not only important to people, it is also critical for a vast array of species – through the encouragement of green and blue spaces within new and existing developments, including residential gardens, we will provide vital habitat. Sometimes humans take species, such as bees, for granted but it is always worth considering a comment by Albert Einstein who said:

"If the bee disappears from the surface of the earth, man would have no more than four years to live. No more bees, no more pollination,...no more men!"

How the SPD fits together

This SPD considers relevant national, regional and local policies which will impact on the delivery of GI. It also sets a number of objectives and an overall vision for the delivery of GI in Hartlepool. The SPD maps the existing GI within the borough, looking at the strengths, weaknesses and a functionality of GI within distinct areas of the town and rural area and thus helping to highlight areas of deficiency and where connections and improvements can be made in the future to further enhance the overall GI within the borough. In order to fund future development of GI identified within the SPD, financial options and investment are considered along with a section looking at the future maintenance of GI. In order to ensure the vision and aspirations of the SPD are delivered on the ground an Action Plan has also been developed. It will be necessary to monitor and review the delivery of the Action Plan and details of this are also set out within the SPD.



(Figure 1 – Tree lined corridor)

Policy Context

This document has been prepared within the context of up to date European and national legislation and reflects the key themes of policy guidance.

At a **national level** the importance of Green Infrastructure (GI) is recognised in a number of documents which help to highlight the benefit of the protection and enhancement of GI within towns and cities:

- The National Planning Policy Framework (NPPF) recognises the positive impact that GI can have in the battle against Climate Change including factors such as flood risk, coastal change, water supply and changes to biodiversity and landscape. It requires local planning authorities to prepare local plans which positively plan for the creation, protection, enhancement and management of networks of biodiversity and green infrastructure.
- The Natural Environment White Paper (The Natural Choice: Securing the Value of Nature, 2011) refers to the role of urban green infrastructure as completing "the links in our national ecological network" and "one of the most effective tools available to us in managing environmental risks such as flooding and waves".
- Biodiversity 2020: A Strategy for England's Wildlife and Ecosystem Services (2011) builds on the White Paper and sets out how international and European commitments are to be implemented and achieved. Action 3.4 sets out how the approach of the planning system will guide development to the best locations, encourage greener design and enhance natural networks.
- The Countryside Agency (now part of Natural England), in its publication 'The countryside in and around towns', also supports the concept of GI. 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.
- Natural England's Green Infrastructure Guidance considers the planning and delivery of green infrastructure, recognised it as an essential part of sustainable spatial planning. It highlights the role of green infrastructure as a 'life support system', able to deliver multiple environmental functions, and to play a key part in adapting to and mitigating climate change.

On a **regional level** the importance of GI in making the north east an attractive place to live and work whilst also providing the benefits highlighted in national guidance is outlined in the following documents:

- The **Tees Valley Green Infrastructure Strategy (2008)** sets out the strategic vision for the development of GI within the Tees Valley and identifies key strategic corridors including a number within Hartlepool including The Coast Hartlepool to Cowbar, the Town Centre to Summerhill and Saltholme to Cowpen Bewley, Wynyard and Hartlepool. Along with the development of this strategy an extensive piece of work, the GI Valuation Toolbox, was also undertaken to illustrate the monetised public and private sector benefit values for a given GI investment. This is a tool which can be used to help illustrate the extensive and multifunctional benefits that can be derived from the implementation of GI.
- The Tees Valley Economic and Regeneration Statement of Ambition (TVU 2011) recognises that "efforts to promote economic growth must be matched by a continued improvement in the Tees Valley's quality of place so that it appeals to prospective workers, residents and visitors; helps to further investor confidence and provides attractive settings for new development. Development and effective management of green infrastructure will play a fundamental role in achieving this, as well as directly supporting the development of a low carbon economy."
- Durham County Council and Stockton Borough Council have both prepared green infrastructure strategies and it is important that key areas of GI, especially green corridors and environmental designations which cross boundaries are reflected and supported by this strategy.

At a **local level** the importance of GI has been recognised for some time, however, to date the delivery of GI in the town has not always been considered in an integrated manner. At present there are a number of documents which recognise the need to protect, enhance and develop GI within the town in the future to ensure current and future generations enjoy the wide range of multi-functional benefits which GI can deliver.

• Within the Hartlepool Local Plan 2006 chapter 12 covers the green network and incorporates a number of policies aimed at safeguarding GI and working (along with partner organisations) to actively improve the quantity and quality of the green network and key green spaces, including the green wedges, parks, churchyards, allotments, the coastal margins, ponds and watercourses. These policies are complemented in other areas of the plan by policies such as Rec4 which seeks to protect outdoor playing spaces and other policies which look to improve the provision and quality of recreational outdoor spaces, both formal and more natural areas such as Summerhill.

 Chapter 13 within the plan focuses on wildlife and the natural areas of the Borough and is also vital in terms of protecting the natural environment which forms a critical element of GI within the borough. These policies will ensure all national, regional and locally designated nature sites are protected and where appropriate enhanced. Other important elements it aims to protect include existing woodland and in particular ancient semi-natural woodland.

There are other Local Plan policies which will be used to ensure the GI in Hartlepool continues to improve over the plan period, most notably Policy GEP9 (Developer Contributions) which enables the authority to seek contributions from development towards a number of elements of GI.

- The importance of GI is also reflected in the Council's Local Infrastructure Plan 2012 which includes a section covering some of the key areas of GI that the local authority is seeking to further develop and enhance over the coming years. Many of the areas covered are within the strategic green infrastructure corridors identified in the Tees Valley GI Strategy however there are others which form smaller, more discrete elements of Hartlepool's GI such as North Cemetery which is an important open space in a densely populated area of the town.
- One piece of emerging planning guidance which will play a critical role in the development of GI in Hartlepool is the Residential Design and Sustainability SPD which is currently being prepared. Within GI some of the most interesting landscapes can be the links between the built environment and the more natural, greener spaces. These areas need good design principles which can be applied through the planning and development process. Working with developers to secure well designed new developments which protect key green areas, provides new GI which complements existing provision and ensure mitigation where GI is lost as a result of the development will be crucial.
- Other local strategies and plans which will impact positively upon the delivery of GI and the aims and objectives of this SPD include the Climate Change Strategy, the Local Transport Plan and Cycling Strategies, the Strategic Flood Risk Assessment and the Landscape Assessment. The Action Plan which accompanies this SPD will help to form a delivery tool for many of the aspirations of these documents.

Vision and Objectives

Vision of SPD: **By 2028 Hartlepool will have a high quality, multifunctional,** accessible green infrastructure network which enhances the community's quality of life and also of wildlife.

An improved rights of way network will make it possible to move safely, easily and comfortably through the borough on foot or by bike, so that those who live in, work in or visit Hartlepool have abundant opportunities to explore its distinctive, historic and valued green neighbourhoods with tree lined streets, historical parks or village greens surrounded by attractive, wildlife rich countryside. Sitting within the town, urban fringe and countryside outstanding outdoor sport facilities, tourism attractions, unique heritage and biodiversity features will help people enjoy the high quality of life Hartlepool is known for.

The rural character of the countryside will be protected and the open landscape aspect to the west of the town will be maintained as far as possible. Traditional farming will sit comfortably within a more wildlife friendly and accessible landscape alongside sustainable, small scale rural attractions and renewable energy initiatives, providing those who work and live there with opportunities to make increasingly diverse use of their land.

The capacity of GI to accommodate protected and priority habitats and species, especially in coastal regions, will be enhanced encouraging valuable, healthy ecosystems to flourish, so that wildlife and plants can move, feed, disperse, migrate or reproduce more easily, making them more resilient to climate change. The environment in the built area and the urban fringe will mature and expand providing unique environments where opportunities for recreation, biodiversity, food and fuel production can sit side by side. Making the best use of existing and new greenspaces will provide greater opportunities for play, sport, recreation, relaxation and local food production, promoting active healthy lifestyles close to home. The growing appreciation for the natural environment will be actively captured so people of all ages can value, manage and care for it.

A quality, distinctive and well connected GI network will help attract new investment, encouraging people to live and work in Hartlepool because of its exceptional ability to deliver healthy, safe and sustainable lifestyles. New green neighbourhoods will improve the quantity and quality of greenspace, habitats and trees for people and wildlife while integrating sustainable drainage and flood storage will help the borough mitigate the effects of, and help the natural environment adapt to climate change.

The objectives on the following page link the vision to the rest of this Strategy. The projects identified in the accompanying Action Plan should achieve one or more of these objectives, to help deliver the vision. As all objectives are interrelated, delivery of

one will help to deliver benefits elsewhere. Where the symbols shown in the table below appear in the Action Plan, this will show where an objective is being met.

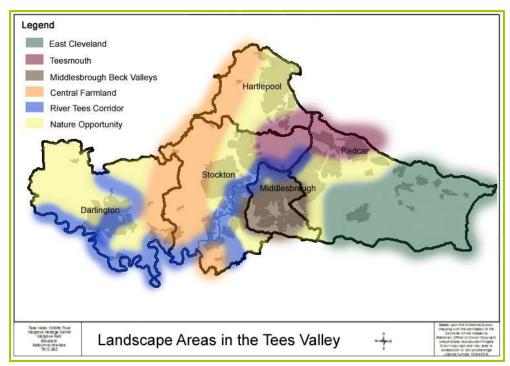
Objective	Key Symbol	Objective Description
1		Protect a high quality visual landscape and townscape, and enhance the unique character, heritage, function, intrinsic quality and sense of place of Hartlepool's GI network to contribute positively to its distinctiveness
2		Provide a network of interconnected GI and spaces rich in habitat and home to a diverse range of wildlife which also play a critical role in improving the health of residents through providing attractive opportunities for recreation and sustainable travel.
3		Minimise the impact of and adapt to the effects of climate change, by reducing greenhouse gas emissions, the use of resources, the risk of flooding and pollution and provide for species adaptation by maximising the protection and creation of GI.
4		Promote the preservation, restoration and re-creation of priority habitats, ecological networks and expanding and linking habitats together, including working across Local Authority boundaries where appropriate, to assist in restoring biodiversity and allowing species to respond to climate change.
5		Ensure trees and hedges are protected throughout the borough and integrate planting schemes within all new developments and, on larger housing schemes, delivery areas of new areas of woodland. The conservation of ancient woodland and veteran trees which are irreplaceable is imperative.
6		Protect and enhance a wide range of high quality opportunities for safe and accessible formal and informal sport, recreation and leisure facilities to encourage the community and visitors to undertake a variety of healthy exercise within attractive settings.
7		Involve users, including "friends of" groups, and neighbours of GI in its design, ensuring usability and helping to create a sense of ownership and pride.
8		Support economic growth, attract inward investment and support redevelopment of brownfield land by improving the setting of industrial and commercial areas through the delivery and enhancement of quality, distinctive and attractive GI.
9		Create a quality, distinctive, and productive GI network to support local food production, rural diversification and tourism to meet the needs of local businesses, landowners and to provide a diverse employment base.
10		Ensure key green hubs, such as parks, play spaces and woodlands, are linked by means of safe and easily accessible green networks and rights of way that together form a high quality GI grid across the whole of the borough.

Strategic Green Infrastructure - Ensuring Hartlepool links in

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. It is recognised 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.

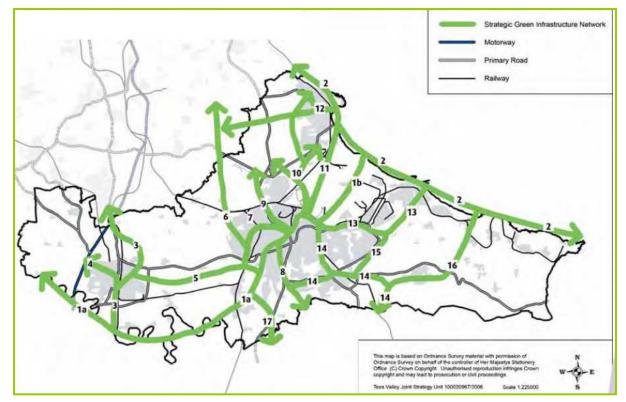
The Economic and Regeneration Statement of Ambition (2012) produced by Tees Valley Unlimited aims to drive forward the economy in the Tees Valley. Within the document there is a recognition of the importance green infrastructure plays in this where it states "If we are to continue to diversify the economy we need to build on these assets...helping to support a more balanced and sustainable - both economically and environmentally - model of growth, to address our long term challenges." It also recognises the significance to the economy that "the improvements to our environment and natural assets that are significant from an international wildlife perspective, including the River Tees, the RSPB Saltholme Reserve and Teesmouth National Nature Reserve" have had.

The Tees Valley Wildlife Trust produced a diagrammatic map illustrating the 6 distinct landscape areas in the Tees Valley (Figure 2 provided by Tees Valley Nature Partnership).



(Figure 2: Landscape Areas in the Tees Valley.)

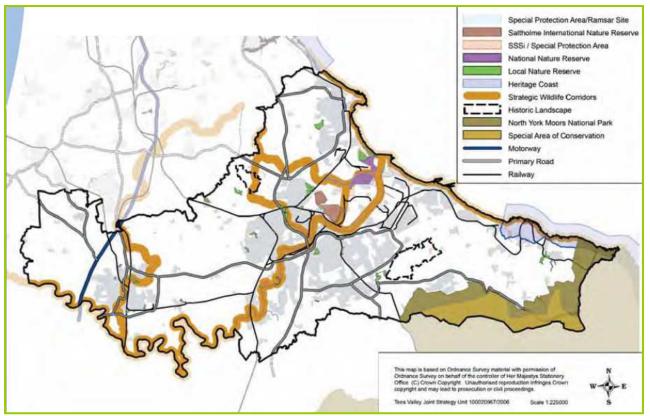
The Tees Valley Green Infrastructure Strategy (2008) helps to drive forward the development of a strategic network of GI across the Tees Valley and also reflects links into neighbouring areas. It is important that, in developing a GI Strategy, the wider aspirations of the Tees Valley and other neighbouring authorities are taken into account and reflected within Hartlepool. Figure 3, below, illustrates the key green networks in the Tees Valley.



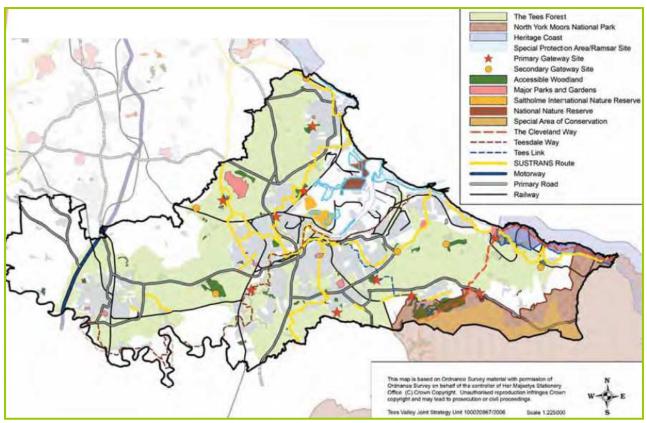
(Figure 3: Tees Valley Green Infrastructure Network. Source TV GI Strategy 2008)

The key networks and connections illustrated in Figure 3 also fit together with many other elements of GI which help to create a Tees Valley which is rich in terms of all aspects of GI including biodiversity, landscape, habitat, green corridors, wetlands as well as other GI as identified on Diagram 1.

Figures 4 and 5 below help to illustrate the variety of GI which the Tees Valley benefits from. It is important that Hartlepool strives to continually protect and enhance its GI in a manner which respects and complements the GI in the wider region. Through having a more strategic understanding of GI in the wider region this helps us to be able to see where there are weaknesses in the network which could be improved in the future but also to see where there are opportunities to build and diversify the existing GI to ensure that future generations continue to enjoy a naturally beautiful Tees Valley and Hartlepool.



(Figure 4: Biodiversity and Designated Areas. Source TV GI Strategy 2008)



(Figure 5: Green Infrastructure Resource. Source TV GI Strategy 2008)

Existing Green Infrastructure in Hartlepool

Hartlepool currently benefits from a wide range of green infrastructure spread across the Borough. This ranges from traditional parks in the town such as Ward Jackson and Rossmere to significant green wedges running from the countryside into the town, to individual gardens all acting as green lungs, and offering a range of different green spaces and activities.

Given its coastal location Hartlepool also benefits from a high quality coastline much of which is designated as Special Protection Area (the highest ecological protection) and which is home to a diverse range of species. To the west of the town are vast areas of rural land which bring with them not only the ecological benefits associated with open space, farmlands and hedgerows but also opportunities for walking and cycling and a wide range of other opportunities and benefits to the residents, town and the economy.



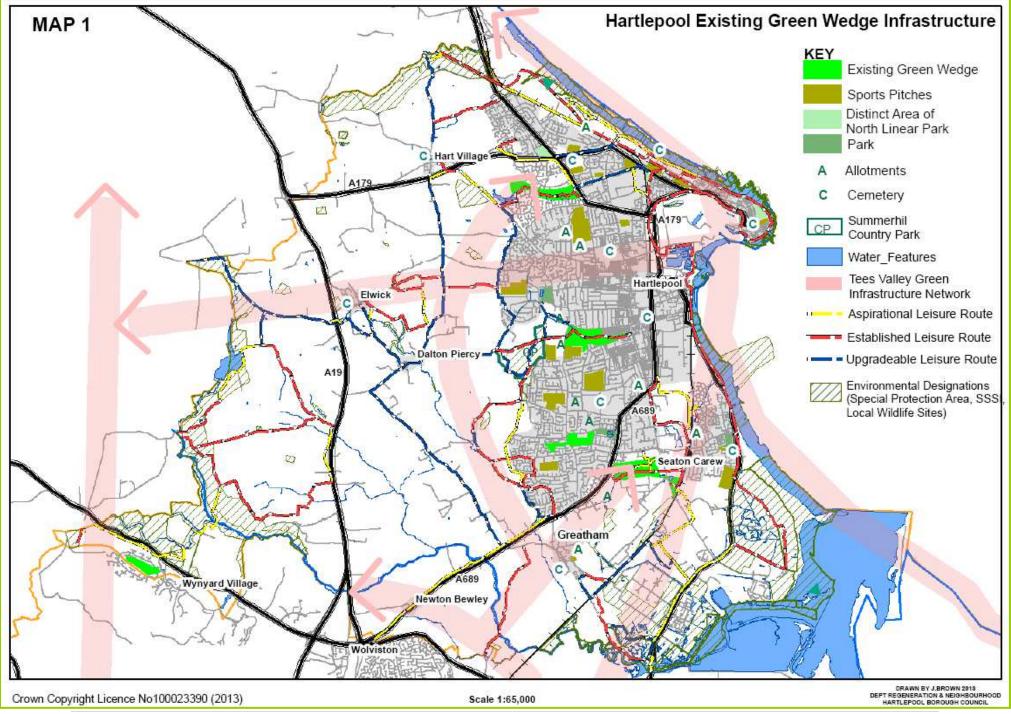
(Figure 6: Summerhill Country Park)

This section will look in detail at the various distinct areas and green infrastructure which the town currently benefits from, considering their strengths and weaknesses. Map 1 on the following page illustrates the main areas of green infrastructure within the Borough. From developing a sound understanding of the current provision, this informs

the priorities set out in the Action Plan and will enable opportunities for new green infrastructure, enhancement to current provision or where new linkages are needed to help create a successful and useable network of green infrastructure across the Borough in the future. One of the key elements in ensuring a GI network which functions well, is the links which enable people to enjoy the wide variety of GI throughout the Borough. Map 1 illustrates established, upgradable and aspirational leisure routes (rights of way, bridleways etc) and the ongoing development and enhancement of these routes will play a critical part in the overall development of GI in the Borough.

This understanding of current provision both in quantative and qualitative terms is examined in a range of ways through documents such as the Open Space, Sport and Recreation Audit and Assessment (2008) (this document will be reviewed in 2014) which sets standards for the various types of open space which it assesses. Moving towards the aspirational standards within the Open Space Audit and Assessment will have a significant positive impact on the GI within the Borough. The schemes which are outlined in the GI Action Plan will all aid in moving towards the open space standards both in terms of new provision and quality improvements in existing open space typologies, illustrating clearly the thread between the two documents.

There are various other documents which have direct impacts in terms of GI, or where GI can directly help in achieving the aspirations of a particular document. One such example is where GI can play a vital role in flood alleviation, contributing to the delivery of vital infrastructure to reduce the risks identified within the Strategic Flood Risk Assessment.



The Coast

Safety on Site

unique flora and fauna of the area.

elp us keep you safe ple

Hartlepool has around 15km of coastline that faces the North Sea with another 2km along its southern border at Seaton Channel. Most of this is fronted by wide and shallow sandy beaches except for a wide fringe of magnesian limestone rock that wraps around the Headland and mudflats along Seaton Channel. Over half of the entire length of the coastline is designated as part of the Teesmouth & Cleveland Coast SPA and other sections are also important for their other wintering birds. The Headland, as an elevated promontory over the North Sea, is noted nationally as being of importance for attracting rare migrant birds and locally it is becoming increasingly recognised as a good place to see marine mammals. Access to the coastal areas is a priority and the potential housing development on the former industrial land will see improvements to the coastal and footpath network in the area. South of Seaton and north of the Brus tunnel, there are extensive dune systems that are nationally or locally designated for nature conservation. Also in the south east of the town is the beautiful and diverse Greenabella Marsh, owned by Huntsman Tioxide. The company works with local groups to promote knowledge of the area.

(Figure 7 – Information on Greenabella Marsh. Source: Huntsman Tioxide)



the yellow phone next to the reception entrance. Please stay on the marked paths and board walks throughout you

entrance.

 Please note that Site alarms are tested at 11.00 am every Wednesday ALWAYS remember to let Site Security know when you arrive and leave The beaches from the northern end of Seaton Carew to North Gare are used by large numbers of people for various recreational purposes throughout the year. Much of the remainder of the sandy beaches are used by relatively few people. Other than a 500m length of beach in front of Seaton, all of the beach and rocky areas become inaccessible at mean high tides. However access along the coast continues to be good due primarily to the extensive promenades from Seaton to the Marina and around the Headland. Seaton Carew bathing waters are a key priority for the Environment Agency. The Bathing Waters Directive seeks to protect and improve bathing waters. Currently North Gare is currently classified as "good" and should be the benchmark for other areas including Seaton North and Seaton Central which are classified as "poor" and "sufficient" respectively. The Council will continue to work with the Environment Agency and NWL to actively improve the bathing waters in the Borough. Works have also recently taken place to improve the promenade in Seaton Carew and a linear play park masterplan has been produced. Much of the remaining coastline can be accessed along the dunes although these are delicate systems which can easily be damaged by trampling. Currently there is no regular access around Victoria Harbour and Seaton Channel due to industrial and commercial uses. Access is also difficult for the 2km section of the former industrial works north of the Headland but this may be addressed through the development of the coastal path.



A recent development has been the enactment of the Marine and Coastal Access Path Act 2009; Part 9 of this act has placed a duty for a coastal path to be created along the whole of the English coastline. One of the first stages is being developed between Seaton Common and Roker at Sunderland. This route runs primarily on routes with occasional sections running over routes with multi-user rights. When approved and adopted by the Secretary of State (Department Environment Food and Rural Affairs) this route will have the legal status and title of English Coastal Path and will be recognised as a national trail.

Ward Jackson Park

The park was provided by public money in 1883 to commemorate one of Hartlepool's greatest entrepreneurs, Ralph Ward Jackson. The park is listed in the National Register of Historic Parks & Gardens because of its collection of Victorian and Edwardian features: the Lodge House (1883), the Bandstand (1901), the Fountain (1902), the Clocktower (1925) and the magnificent lake set in its Victorian landscape.

A project to restore and develop the park was recently completed, being funded by Hartlepool Borough Council, The Heritage Lottery Fund and Capital Challenge. This project returned the park to its original splendour and providing for the full involvement of park-users in its future. 'The Friends of Ward Jackson Park' meet to represent the views of park-users, organise events and activities and raise funds for their own Park projects.



(figure 10 – Ward Jackson Park Lake)

(figure 11 – Ward Jackson Park Band Stand)

It makes a significant contribution to the Park Conservation Area. Not only is it an important example of a Victorian public park but it is also strongly linked to the buildings surrounding it, setting the tone and reinforcing the Arcadian principles of the area. The successful restoration of the Park illustrates the importance of proactive investment in public open spaces in urban areas such as this.

Ward Jackson Park continues to play a crucial role in the provision of attractive green space in the west of the town, acting as a focal point for residents and visitors to enjoy, especially in the spring and summer months when its true beauty can best be appreciated.

Rossmere Park

The park is ten acres in size and forms an important element of the Owton Manor Green Wedge. Set in an urban residential area, the park incorporates open-grassed areas, trees, flower beds, an all weather pitch and a fixed equipment playground (for toddlers and teenagers). The park is a locally listed building and therefore identified as a heritage asset. It is a good example of a park laid out in an informal arrangement. It being recognised as a heritage asset it highlights the significant positive impact that this park has on the surrounding area.



(Figure 12: Lake at Rossmere Park)



(Figure 13: Entrance to Rossmere Park)

There is a lake with a wooded island and a nature area incorporating a pond dipping platform. The park is used for both formal and informal sport and recreation. Facilities are available for basketball, netball, football, tennis on the all weather pitch and angling is permitted on the lake.

The new MUGA and skatepark development at the top end of Rossmere Way, coupled with the pitch provision on Rossmere Way provide a green corridor of activities in this location.

Seaton Park and open space within the vicinity

Seaton Park is 16 acres in size and provides a range of facilities for users including a play area, 5 tennis courts, a bowling green, flower gardens and open grassed areas. The park is well used and a valuable asset to Seaton Carew although elements of the park are in need of restoration or replacement.

There are other less formal areas of public open space in Seaton Carew that none the less play an important part in offering different types of green space in the area. For example areas such as The Green, a formal green space flanked on three sides by housing. This provides an amenity space for those living in the surrounding houses but also makes an important contribution to the setting of a number of heritage assets in the area. Furthermore the large areas of informal open space provide the setting of the

Seaton Carew Conservation Area forming a green swath separating the buildings from the coast.

Owton Manor Green Wedge

This green wedge is probably the least identifiable of the three existing green wedges in the town, running from the rural fringe at Owton Manor through to Rossmere Park in the east and provides a gateway into and out of the urban area. The eastern end of the green wedge including Rossmere Park and the recreation ground on Rossmere Way are major assets to this area of the town and provide space for recreational and sporting activities. The western end of this green wedge is predominantly green open space with some tree planting. In itself it is not of particularly high quality in terms of green infrastructure and does suffer from anti social behaviour including use by motorbikes and quad bikes which regularly causes significant damage to the grassed areas. However, due to the lack of green infrastructure in the south of the town, it is of great importance to residents. Recently a play builder scheme was created towards the western end of the green wedge which has provided valuable play space for young people in the area.

Burn Valley Green Wedge incorporating Summerhill Country Park

One of the 3 current green wedges within Hartlepool is the Burn Valley Green Wedge running from the centre of town out to the countryside in effect forming a green lung for the town. This park is 19 acres in size with 3 bowling greens a new bowling pavilion, Ornamental gardens, playground and provides a walk through park land from the town centre to family woods and on to open country side. The park itself is recognised as being of importance to the local area and is locally listed.

Works carried out during 2011/12 have seen the improvement in the environmental quality and landscape of the Upper Burn Valley through habitat creation and restoration thereby creating more 'wild places and natural spaces' within easy reach of the urban populace have been coupled with improvements to the public and permissive rights of way to enhance the quality of the green wedge. Specifically the works have seen the extension of the Family Wood, general environmental improvements and resurfacing of paths along with works to the river banks.

There are a number of multi-functional benefits of the work within the Burn Valley section of the link as it will enhance biodiversity as well as providing a safer pedestrian and cycle route which will encourage people to exercise and will further enhance the sense of place within the Burn Valley. In economic terms this will allow people from the western areas of the town to access work in the town centre in a sustainable manner.



(Figure 14: Burn Valley Gardens)

The works have given communities the opportunity to gain knowledge, training, qualification and experience to enable them to take ownership of the area, with the intention of them running the site in the future with support from the Local Authority. Schools and pre-school groups were encouraged to visit during the works for educational, health and recreational purposes, as they will be the future conservation stewards of the borough.

To the west of the Burn Valley, improvements and a new pedestrian / cycle route are proposed which would improve access opportunities to Summerhill for residents and would have a positive contribution to the success of the leisure/tourism facility. Summerhill also offers a cycle maintenance scheme to help to encourage people to use and look after their bikes.

Middle Warren Green Wedge

This green wedge is an integral element of the Middle Warren housing development that has built out over the past 20 years. This is the most northerly green wedge in Hartlepool and begins to the east of Hart Reservoir and forms a valuable green corridor running through to Easington Road. To the east the green wedge is more natural with mature trees in a ravine which leads into a less mature green wedge which has been formed as part of the development. A stream meanders its way through the area forming an attractive feature which has been diverted in recent years to help form wetland areas and to control the waters more in times of high rainfall. Extensive tree planting has taken place over the years with more mature trees tending to be towards the western end of the green wedge with younger trees and saplings towards the eastern end. A network of footpaths allows users to enjoy a variety of walks and routes through the green wedge and the area is well used by locals for walking and running. A new children's play area has recently been approved and will be constructed to the south of Merlin Way helping to provide further recreational provision within the area.

Wynyard Woods Green Wedge

The green wedge at Wynyard Woods helps to provide an attractive setting for the executive housing product at Wynyard. This green wedge is relatively young having developed over the past decade or so in line with the housing development in this area. It mainly provides a green space with some planting which provides recreational space for running or dog walking. In line with future development in the area there is an aspiration to extend the green wedge through to link with the Castle Eden Walkway.

Golden Flatts Green Wedge

Currently this area is a semi-natural area of land which acts as a barrier between housing on Seaton Lane and the steel pipe mill. The area currently is an unmanaged area which is mainly used for dog walking although it does incorporate SuDS ponds associated with the recent housing development on Seaton Lane. This area is seen as an area of opportunity and will be developed into a formal green wedge over the coming years which is likely to incorporate tree planting, woodland walks, ponds, play space and possibly some pitch provision.

Allied to Golden Flatts is a small triangular area of land on the other side of Brenda Road. This is at the rear of the Council road salt store and links to the footpath network to Seaton. Several ponds were created on this area in 2010 in collaboration with Tees Valley Wildlife Trust.

North Linear Park

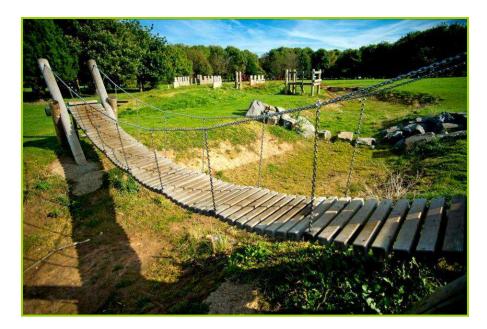
Within the northern area there are a number of elements of individual green space which currently exist including the Town Moor on the Headland, Central Park, a green corridor on Central Estate, Clavering play area and the Middle Warren Green Wedge as well as areas of accessible, attractive coastline and countryside. These elements all play an important part in the overall green infrastructure within the northern area of the town. The Town Moor plays an important role in the Headland Conservation Area. The area provides a vast open space which contrasts to the smaller squares and enclosed spaces found elsewhere in the area.

To varying degrees, they will all need investment and care over the coming years to ensure that residents and visitors are provided with a high quality of environment to enjoy. One of the major issues that has been highlighted is that these key green spaces do not currently benefit from a good standard of connectivity and tend to be areas that people may use in isolation and do not offer an opportunity to move easily between the distinct areas in a safe green environment. The North Linear Park in its entirety will play an important part in the improvements to the access network in the north of the town and to the north west of the town and will form links with other key programmes including Limestone Landscapes, Coastal Access and Hartlepool Pondscape.

A steering group has been formed to help drive forward the aspirations of local people in this area of the town, using a masterplan for the linear park as a basis. Currently it has prioritised its areas of work in the short term to focus on the large open green space on Central estate and Clavering Play Area. In recent years, both of the green spaces have been blighted by a number of issues in relation to anti-social behaviour, vandalism and damage, litter and dog fouling and addressing these issues is seen as key to their development in the future.

The Central estate green space is situated between West View Road and Old Cemetery Road and is located within an area falling within the top 5% most deprived nationally (IMD 2010¹). For some time, the Central estate community has aspired to enhance the natural environment, increase biodiversity, educate local people about wildlife and habitats that are in close proximity, but ultimately to encourage health and wellbeing and improve resident levels of satisfaction. Funding is being sought to implement the masterplan, subject to further consultation and statutory consents.

One of the key aims of the group has been to reclaim this key piece of green space for local community use through the redesigning and planning of the area, driven by the needs and aspirations of local residents. The area has not been subject to investment for a long time, and it is anticipated that improving and enhancing the Central estate green space will also be of benefit to the wider Hartlepool community. It is currently very well used for recreation, is an integral part of the Coastal Access Pathway (of which Hartlepool is one of five National Pilots, funded by Natural England) and is on one of the main key rail routes into the town. The interaction between poor quality environments, areas of high economic and social disadvantage, and reduced levels of health and wellbeing are well documented, and the provision of a formalised park space to utilise will undoubtedly improve the quality of life for those residents living within close proximity. It is also hoped that by aesthetically improving the green space and this important connecting section of the Coastal Access Pathway, that people will be encouraged to exercise more frequently.



(Figure 15: Clavering Play Builder)

¹ Indices of Multiple Deprivation

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6871/1871208.pdf

Clavering Play Area is situated between West View Road and Easington Road in Clavering, improvement works are anticipated to commence in 2013. The scheme, which is a joint initiative between Hartlepool Borough Council and Groundwork North East and overseen by the steering group includes new fencing, trees, paths, car park, wetland scrape and skate park.

Rural Hartlepool

Hartlepool's rural area covers more than half of the borough's total area with the majority of the public and permissive rights of way path network located there. This network of paths is an important part of the makeup of rural Hartlepool. People rely on these paths for pleasure as well as access to and from work and local amenities. The majority are public footpaths with a few public bridleways located to the north of the borough. A major issue with the rights of way network in rural Hartlepool is the A19 dual carriageway which severs many of the routes and adds a large degree of danger to those walking circular routes where they need to cross the A19.

The main usage of these paths is recreational, with the emphasis on exploration and enjoyment. The majority of these pathways link into a wide range of Hartlepool's green spaces infrastructure. From parks, wild green spaces and local nature reserves to simple green spaces close to or within housing areas, these vital links provide access to and from these open spaces and form part of a wider network that becomes regional in scope and aspect. Regionally the footpath and cycle network is growing and increasing in importance, as organisations such as NHS Trusts, Natural England and Local Communities groups recognise the benefits to mental and physical health that these paths provide for any user of any capability.

Summerhill Country Park lies to the west of the urban area and in effect forms a rural extension to the Burn Valley Green Wedge. This excellent facility provides a wide range of outdoor activities including a circular walk which has areas of ecological interest with signposting to educate users where there are particular flora or fauna of interest. Other activities include a bmx track, boulder park for climbing and cross country running. These facilities are further supplemented by an outdoor play area for children and an information centre and café. Summerhill itself, and the rural edge to the park, provides a rural setting to the boundary of the Park Conservation Area. This boundary provides a soft attractive edge to the urban area, offering a transitional zone between the countryside and the built up areas of The Park. The Park Conservation Area itself has Arcadian origins with a strong visual, landscape and 'wellbeing' link between the houses and the countryside. At the time of their development those with the capacity to do so escaped the dirt of the town to live a privileged life in the simulated country estates. These are found on the edge of the conservation area with properties laid out with long, controlled views to 'borrow' the scene beyond and use landscaping to create the feel of a country estate.

Wildlife Habitats

Hartlepool borough contains a number of priority habitats and species, mostly concentrated within Teesmouth but also along the coastline and scattered across the open farmland.

Teesmouth is a mosaic of estuarine habitats mostly reclaimed over the last two centuries for industry but still containing remnants of estuary-related habitats such as mudflats, coastal and floodplain grazing marsh and sand dunes along with open mosaic habitat on previously industrial land (formerly known as brownfield sites). It includes sites of international importance for over-wintering and breeding wildfowl and wetland birds and some of these sites lie partly within the Hartlepool area. There are several areas of coastal and floodplain grazing marsh within the Teesmouth area of Hartlepool, the largest being at Greenabella Marsh and Seaton Common; Seaton Common also has a large area of sand dune. Mudflats are found along the north banks of Greatham Creek and Seaton Channel (part of the large intertidal mudflats at Seal Sands), and at West Harbour. Remnants of saltmarsh occur along the north bank of Greatham Creek, within the Seaton Dunes and Common SSSI, and at the Slake, close to Victoria Harbour. Areas of reedbed are found at Seaton Common and Cowpen Marsh. Open mosaic habitat is found centred upon areas which were formerly subject to land reclamation. Several of the sites consist of open mosaic grassland, supporting important butterfly species, whilst the remainder support important amphibians.

The coastline features stretches of dune systems, sandy beaches, coastal grassland and important geological features. The coastline from Crimdon Dene to Hartlepool Headland supports internationally important populations of wildfowl and wetland birds and West Harbour and Carr House sands are important for overwintering bird populations. Sand dune systems are found at Hart Warren dunes, which support many plant species characteristic of both northern and southern British dune systems, and Seaton Dunes, which is the largest sand dune system between Lindisfarne to the north and the Humber to the south. Seaton Dunes and Seaton Common link the habitats of the coastline with those in Teesmouth.

Habitats found scattered across the open farmland include woodland, grassland, fens, ponds, hedgerows and orchards. Ancient and semi-natural woodland is found in Hesleden Dene on the northern boundary with Durham and at The Howls near Elwick. The Wynyard Woodland Park Complex in the south west of the borough contains some ancient and semi-natural woodland, along with broadleaved mixed woodland and one site of wet woodland. Hedgerows are a feature across the open farmland and some of them have been found to be species-rich. There is a cluster of small lowland meadows around Elwick, whilst other neutral grasslands that are species-rich are found scattered across the open farmland, mostly associated with slopes. Also across the farmland are six fens, the most important being Hart Bog SSSI.

Priority ponds are mostly found in the urban and industrial areas of Hartlepool, with a few isolated ponds scattered across the farmland. The majority of the ponds meet the

priority pond criteria due to the presence of either common toad, great crested newt or water vole.

The coastline has several important geological features: Hartlepool Submerged Forest, Hartlepool Headland and Long Scar and Little Scar. Across the farmland there are two important geological sites, one at Dalton Batts and one at West Crimdon Dene, and also four quarries, all showing important geological features, two of which are recolonising with grassland and scrub.

Populations of great crested newts are found at Summerhill, Claxton, and within the industrial area north of Greatham Creek. Water vole is present at Greenabella Marsh and Phillips Tank Farm in the industrial area, and along the Greatham Beck corridor west of Hartlepool.

Breeding populations of bird species of key importance in the Tees Valley are present within the farmland to the west of Hartlepool. Species listed as of red level of concern in the UK include yellowhammer, cuckoo, corn bunting, yellow wagtail; species listed as of amber concern in the UK include quail, green woodpecker, redstart and bullfinch. Most of these species are also UKBAP priority species. The entire wintering population of little egrets from Teesmouth nest at Rossmere Park. Most of the coastline is important for non-breeding/overwintering bird populations, including the area around the estuary which has international and national designations for winter populations of water birds including non-breeding populations of red knot, common redshank and sandwich tern.

Common Lizard has been recorded at Hartlepool Power station, Greenabella Marsh, North Hartlepool Dunes and Hart to Haswell railway. Dingy skipper and grayling butterflies are found at sites within the industrial area; grayling is also found at Hart to Haswell Walkway.

Crookfoot Reservoir supports good numbers of bats (four species have been recorded including nathusius pipistrelle and noctule). Harvest mouse is present at Butts Lane. There is a population of harbour seal centred upon Seal Sands and they often move along Seaton Channel and haul out along Greatham Creek. They are also regularly present just offshore along the coastline of Hartlepool and regularly seen in the entrance to Victoria Harbour.

In addition to the internationally designated sites along the coast, Hartlepool includes the northern section of the Teesmouth National Nature Reserve, a further four Sites of Special Scientific Interest, 49 sites that are of sub-regional importance for their wildlife or geological interest and six Local Nature Reserves. Many of the other areas of green space have some importance for wildlife and the potential to build in biodiversity to those will be an important feature of the green network. Away from the coast, the wildlife habitats in Hartlepool are generally small in extent and widely dispersed, nevertheless they represent a varied suite of different habitats. Expanding and linking these habitats together is a key objective in restoring biodiversity and allowing species to respond in relation to climate change. Local Nature Reserves are specifically places that the public can access to appreciate or learn about wildlife but some of the other areas of wildlife habitat, known as local wildlife sites, are publically accessible and add to people's experience of nature. The range of wildlife habitats and in particular the many opportunities to see wildlife along the coast and to link to adjacent wildlife habitats adjacent to Hartlepool, such as Saltholme, has the potential to see an increase in green tourism. Table 1 below lists the various designated statutory and non-statutory wildlife sites in Hartlepool.

Table 1: Har	tlepool Loca	Authority Area: Designated Sites
Statutory designated sites (National)	Site Name	Reason for Designation
Special Protection Area (SPA)	Teesmouth and Cleveland Coast	Non-breeding populations of red knot, common redshank and sandwich tern and a breeding population of little tern. Also designated for waterbird assemblage.
National Nature Reserve (NNR)	Teesmouth	Covers two areas: North Gare, an area of dunes and grazing marsh north of the power station, and Seal Sands, one of the largest areas of intertidal mudflats on England's north-east coast
Ramsar site (Wetland of international importance)	Teesmouth and Cleveland Coast	Populations of common redshank and red knot occurring at levels of international importance; assemblages of waterfowl of international importance with peak counts in winter.
Site of Special Scientific Interest (SSSI)	Tees and Hartlepool foreshore and wetlands	Comprises several coastal areas which are an integral part of the complex of wetlands, estuarine and maritime sites supporting the internationally important population of wildfowl and waders on the Tees Estuary.
Site of Special Scientific Interest (SSSI)	Cowpen Marsh	Forms a part of 'Teesmouth Flats and Marshes', a complex of sites of international importance for overwintering shore birds. It includes the largest saltmarsh between Lindisfarne National Nature Reserve to the north and the Humber Estuary to the south.
Site of Special Scientific Interest (SSSI)	Seal Sands	Forms a part of 'Teesmouth Flats and Marshes', a complex of sites of international importance for overwintering shore birds. It is the only extensive area of intertidal mudflats, with tidal channels on the East coast of England between the Lindisfarne National Nature Reserve to the north and the Humber Estuary to the south.
Site of Special Scientific Interest (SSSI)	Seaton Dunes and Common	Forms a part of 'Teesmouth Flats and Marshes'. It is an area of considerable importance for its flora, invertebrate fauna, and bird life. The range of habitats present include sandy, muddy and rocky foreshore, dunes, dune slacks and dune grassland, as well as relict saltmarsh, grazed freshwater marsh with dykes (known locally as fleets and stells) pools and seawalls.
Site of Special Scientific Interest (SSSI)	Hart Bog	A small topogenous mire of particular botanical, invertebrate and palaeobotanical interest
Site of Special Scientific Interest (SSSI)	Hartlepool Submerged Forest	Of national importance in the Flandrian Sea-Level Changes block of the Geological Conservation Review

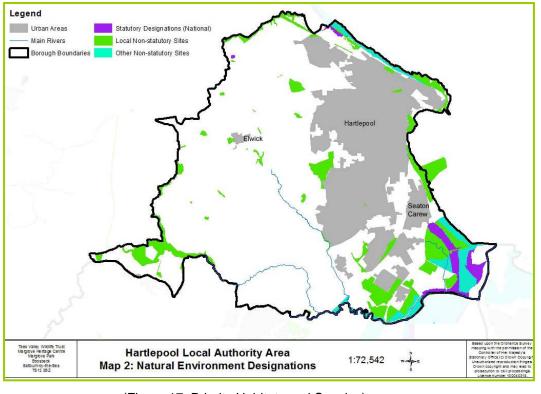
Site of Special Scientific	Durham Coast	Contains most of the paramaritime Magnesian Limestone vegetation in Britain, as well as a species-rich dune system, and supports nationally-
Interest (SSSI)	Coast	important numbers of wintering shore birds and breeding little terns, which contribute to the internationally-important populations of the north east coast
Local non- statutory designated sites	Site Name	Reason for Designation
sites	Hartlepool	
	Power	
LWS	Station	A5 (Common Lizard)
LWS	Black Wood Marsh	E1 (Fens, Flushes)
LWS	Hart Warren Railway Embankment	G1 (Neutral Grasslands); C2 (Coastal Grasslands)
LWS	Hart-Haswell Walkway	I3 (15 or more Butterflies); G1 (Neutral Grasslands); G2 (Calcareous Grasslands)
LWS	Pawton Hill Gill	G1 (Neutral Grasslands); E1 (Fens, Flushes)
LWS	Beacon Hill Marsh	E1 (Fens, Flushes)
LWS	Crookfoot Reservoir	Water Body
LWS	Amerston Gill	W2 (Broad-leaved Woodland and Replanted Ancient Woodland)
LWS	Thorpe Bulmer Dene (inc. W Crimdon Dene)	W1 (Ancient Woodland)
LWS	Greenabella Marsh (1)	M4 (Water Vole); A5 (Common Lizard)
LWS	Greenabella Marsh (2)	M4 (Water Vole); A5 (Common Lizard)
LWS	Close Wood Complex	W1 (Ancient Woodland); W2 (Broad-leaved Woodland and Replanted Ancient Woodland); O3 (Breeding/Wintering Birds); I2 (Important Butterflies)
LWS	North Burn Marsh	E1 (Fens, Flushes)
LWS	The Howls	W1 (Ancient Woodland)
LWS	West Harbour (inc. Carr House Sands)	O1 (Wintering Populations of Birds)
LWS	Carr House Sands (inc. West Harbour)	O1 (Wintering Populations of Birds)
LWS	West Carr Plantation	Wet Woodland
	Greatham Creek North	
LWS	Bank	C1 (Saltmarsh)
LWS	Crimdon Road Verge	G1 (Neutral Grasslands)

LWS	Tilery Gill Grassland	E1 (Fens, Flushes); G1 (Neutral Grasslands)
LWS	Phillips Tank Farm	U1 (Urban Grassland); A1 (Great Crested Newt); I2 (Important Butterflies); M4 (Water Vole)
LWS	The Slake	C1 (Saltmarsh)
LWS	Bellows Burn Fen	E1 (Fens, Flushes)
LWS	Greatham Beck	M4 (Water Vole)
LWS	Elwick Hall Grassland/Fi shpond	G1 (Neutral Grasslands)
LWS	Hart Quarry	O3 (Breeding/Wintering Birds)
LWS	Brierton Quarry	Possible G1 (Neutral Grasslands)
LWS	Greatham North West (previously Sharwoods Bri and Ex)	C1 (Saltmarsh)
LWS	Gunnersvale Marsh	E1 (Fens, Flushes)
LWS	Tot Fenny's Field	G1 (Neutral Grasslands), E1 (Fens, Flushes)
LWS	Queen's Meadow	A4 (3 or more Amphibians)
LWS	Rossmere Park Island Autoglass/Co	O3 (Breeding/Wintering Birds)
LWS	rus Zinc Works	A1 (Great Crested Newt); U1 (Urban Grassland)
LWS	Field Spion Kop	O1 (Wintering Populations of Birds); O3 (Breeding/Wintering Birds)
LWS	Cemetery	C2 (Coastal Grasslands)
	Hart Bypass	
LWS	North Hart Bypass	G2 (Calcareous Grasslands)
LWS	South	G2 (Calcareous Grasslands)
LWS	Hartville Meadow	G1 (Neutral Grasslands)
LWS	Craddon Bank Elwick Hall	G1 (Neutral Grasslands); E1 (Fens, Flushes)
LWS	extension High Stotfold	
LWS	Gill	G1 (Neutral Grasslands)
LWS	High Newton Hanzard North	G1 (Neutral Grasslands)
LWS	Hartlepool Dunes	C2 (Coastal Grasslands)
LWS	Char Beck Grassland	G1 (Neutral Grasslands)
LWS	Butts Lane	M3 (Harvest Mouse)
LWS	Summerhill	Urban mosaic of hay meadows, hedgerows, ponds and planted trees
LWS	Central Park	U1 (Urban Grassland)

	Embankment	
	West	
	Crimdon	
	Dene (part of	
	Thorpe	
	Bulmer	
LWS	Dene)	W1 (Ancient Woodland)
LWS & LGS	Naisberry	G1 (Neutral Grasslands)
LW0 & L00	Quarry	OT (Neutral Grassianus)
LWS & LGS	Whelly Hill	U2 (Disused Quarries)
200 0 200	Quarry	
LGS	Long Scar &	Two exposures of wave-washed scars consisting of Sherwood
200	Little Scar	sandstone, from the Triassic period.
LGS	Hartlepool	A wave washed platform, revealing exposures of Magnesian
200	Headland	Limestone in a coastal zone environment
LGS	Dalton Batts	A large rivercliff that reveals an excellent exposure of glacial sandds,
199	Daiton Datts	gravels and clay from the last glaciation
	West	gravels and eldy norm the last glaciduon
	Crimdon	
LGS	Dene	Exposure of Magnesian Limestone in a river gorge environment
LNR	Hart to	
	Haswell	Former railway line with a rich mix of magnesian limestone grassland,
	Walkway	ponds, semi-mature and mature woodland.
LNR	Hart Warren	
		The only magnesium limestone dune system of any significance in the
		British Isles; supports a rich variety of both flora and fauna.
LNR	Spion Kop	An unusual mix of coastal, limestone and industrial heritage habitats
	Cemetery	that produces rich dune grassland unique in Hartlepool and rare within
	,	the Tees Valley.
LNR	Summerhill	This site combines recreation and conservation. The site has hay
	•••••	meadows, hedgerows, ponds and over 65,000 trees which have been
		planted over the last 8 years.
	Greatham	A small site providing a haven and wildlife corridor for many species
LNR	Beck	including the Water Vole.
LNR	Seaton	Seaton Common is a wet grassland which attracts large numbers of
	Dunes and	passage migrants over winter and is a breeding ground for birds in the
	Common	summer months. Seaton Dunes is the largest sand dune system
	SSSI	between Lindisfarne to the north and the Humber to the south.
Other non-	Site Name	Reason for Designation
statutory		
designated		
sites		
Important Bird	Teesmouth &	Passage of common redshank; winter population of red knot; breeding
Area (IBA)	Cleveland	population of little tern; winter population water birds
	Coast	
RSPB		Managed reserve and visitor centre (in Stockton but links intrinsically
Reserve	Saltholme	with the sites within Hartlepool)

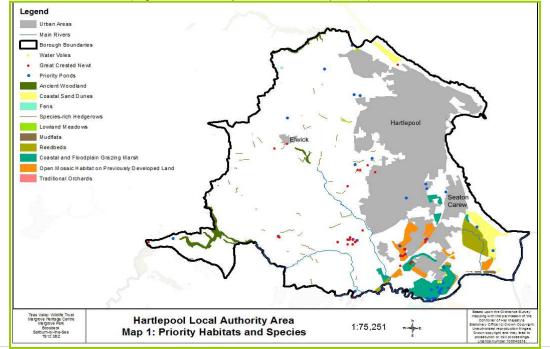
These sites and the habitats and species which they contain are illustrated on figures 16 and 17 below (provided kindly by Tees Valley Nature Partnership).

The coastline features stretches of dune systems, sandy beaches, coastal grassland and important geological features. The coastline from Crimdon Dene to Hartlepool Headland supports internationally important populations of wildfowl and wetland birds and West Harbour and Carr House sands are important for overwintering bird populations. Sand dune systems are found at Hart Warren dunes, which support many plant species characteristic of both northern and southern British dune systems, and Seaton Dunes, which is the largest sand dune system between Lindisfarne to the north and the Humber to the south. Seaton Dunes and Seaton Common link the habitats of the coastline with those in Teesmouth.



(Figure 16: Natural Environmental Designations)

(Figure 17: Priority Habitats and Species)



Many brownfield sites are also very rich sites for wildlife. This has been nationally recognised with "Open Mosaic habitat on previously developed Ground" now a UK BAP habitat (England Habitat of Principle Importance). This describes habitats that are a patchwork of bare, previously disturbed ground and grassland or heath vegetation on thin, poor soils. Previous disturbance is mostly industrial, from mining or other developments. Despite being heavily modified in the past, brownfields are often rich in biodiversity and form an important refuge for wildlife in what can be an otherwise heavily urbanised industrial landscape. Brownfield sites are especially important for mammals such as the brown hare, birds such as the grey partridge and skylark, amphibians and a rich assemblage of invertebrate species.

In the Tees Valley brownfield habitats are particularly extensive, especially around the Tees Estuary. The substrate is typically a weathered blast furnace slag, consisting of calcium silicate, which was used for reclamation of coastal and estuarine areas. This gives rise to a very specialised flora, which is more commonly associated with limestone. The established open grasslands are usually dominated by fine-leaved grasses containing a diverse range of wild flowers, areas of bare ground and scrub. Such areas are locally termed as 'slag grassland' and are a characteristic landscape feature of the lower Tees Valley. These grasslands provide a habitat for dingy skipper and grayling butterflies. In addition, there can be other habitat types, such as reedbeds, ponds and For many years INCA (Industry and Nature Conservation Association) salt marsh. have successfully worked in with industry in the Tees Valley to raise the profile of these natural assets and worked in partnership to create, manage and monitor sites. Although many of these sites are on private land and not accessible to the wider community that do form an integral part of the green infrastructure of Hartlepool and the neighbouring towns of Middlesbrough and Redcar and Cleveland and should be considered as part of the GI resource.

Waterways and Wetlands

Hartlepool is a relatively "dry" borough, without any major rivers and the watercourses, ponds and wetlands that it does have are generally not a particularly prominent feature. Notable exceptions to this are the man-made Hart and Crookfoot reservoirs and the amenity lakes in Ward Jackson and Rossmere Parks but there are no natural water bodies of more than a few metres width. Of the watercourses, the one which rises near Elwick as the Char Beck, becoming Dalton Beck, Greatham Beck and ultimately Greatham Creek is of considerable importance as a wildlife corridor and provider of high quality riparian habitat supporting many species of plants, mammals, birdlife and invertebrates. Many residents also derive various recreational benefits by living in its proximity, especially in its lower reaches by the Fens Estate and Greatham Village. Other small watercourses run along the public right of way network or are otherwise accessible for example, Cowbridge and Claxton Becks through Cowpen Bewley Woodland Park, How Beck through Hart and Middle Warren, Greatham Beck beside the Fens estate and Greatham and various un-named becks flowing through Summerhill and the Burn Valley. Also a number of artificial ponds and wetlands have been created and, although relatively few in number, these add to the visual appeal and wildlife value of the areas where they are located. These waterbodies are one of the ways in which

the GI in the Borough links together and they play a vital part in the setting and quality of green spaces, corridors and natural habitats.

Given the importance of such watercourses and wetlands to visual amenity and wildlife value, opportunities to improve the quality and accessibility of watercourses will be sought, especially where they are failing the Water Framework Directive in terms of obstructions to fish or wildlife or in terms water quality. The creation and enhancement of features such as reed beds, ponds, marshes and wet woodlands will be promoted for the benefit of wildlife and also to assist with flood alleviation. In particular, the incorporation of SUDs schemes as part of development will be encouraged as a sustainable means of dealing with surface water and reducing flood risk.

Opportunities to deculvert watercourses, particularly within the urban areas, as part of the redevelopment of sites will be sought where it is considered the benefits of this are justified.

Sports Pitches, Recreational facilities and School Grounds

Hartlepool benefits from a wide variety of sports and recreational facilities which are vital in the future health of residents. The Council appointed consultants in 2012 to undertake a Playing Pitch Strategy to assess the adequacy of key pitch sports including football, cricket, rugby and hockey as well as looking at tennis and bowling facilities, all of which play a vital part in the green infrastructure provision. This updates and supplements the information gathered as part of the PPG17 Open Space, Sport and Recreation Assessment which was produced in 2008.

The assessments looked at issues including the levels of provision, location, the quality of the pitches and future need. This information helps to assess where investment and development needs to be focused in coming years. The findings from the study will help to inform the Action Plan however this section reflects the contribution that these sports facilities have on green infrastructure at present.

Over the past decade or so football pitch provision has grown significantly with demand and there are now 105 individual pitches across the Borough on a number of sites and split between adult, junior and mini pitches, therefore catering for all ages. This includes all public, private, school and other pitches whether or not they are in secured community use. To compliment this there are also 4 full size artificial pitches which, whilst not natural green infrastructure, play a vital part in the health of the community and provide sports provision in times of poor weather conditions when the grass pitches cannot be used. Most of the pitches which do not benefit from public access are at schools, however many of these do cater for clubs, for example the former Brierton School site pitches are used by Greatham Football Club which has expanded significantly over the past few years. A number of the schools do not currently provide any community access however, in the future it is anticipated that some of these schools may be willing to consider providing some access.

During the consultation exercise, carried out by the consulants who undertook the Playing Pitch Strategy, users were asked for the thoughts regarding the provision of

pitches and the quality of the pitches within Hartlepool. It is generally considered that there is approximately the right level of pitches although there is a need for some of the adult pitches to be sub-divided to meet the increasing demand for junior pitches and in fact in the longer term there may be a need to identify additional land for pitch provision. The main issue that was raised by users was the quality of the pitches and the supporting facilities. Concerns over grass coverage, drainage and changing facilities were some of the main issues raised and the need for improvements to pitches are reflected within the Action Plan.

In terms of other sports which contribute greatly to the green infrastructure within the borough there are six cricket pitches and 18 rugby pitches which in quality terms suffer from similar issues to the football pitches such as wear and tear of pitches and quality of changing facilities.

There are a total of 45 tennis courts (in 2013) available throughout the borough. Many of the courts are on school or Council owned sites with 13 courts being on private club sites. In terms of tennis the main issue is the surfacing and a concern with the private clubs is lack of flood lights and a need to improve training facilities.

Bowling is a particularly important sport especially with the ageing population of the town. There are 12 bowls greens on a total of 10 sites across the town (in 2013). The majority are owned and maintained by the Council however there are 3 private clubs which are successfully operated. In terms of improvements needed most relate to the quality of the surface or drainage ditches. There are however some facilities where either improvements to the existing pavilion facilities or, in the case of Grayfields, a new pavilion is needed.

Many of the above uses are often incorporated within school playing grounds, however these sites also provide other valuable GI which can vary significantly from school to school and may include hedges, allotments, ponds and many other elements all of which add to the system of GI within the Borough.



(Figure 18: Playing Pitch Provision)

Allotments

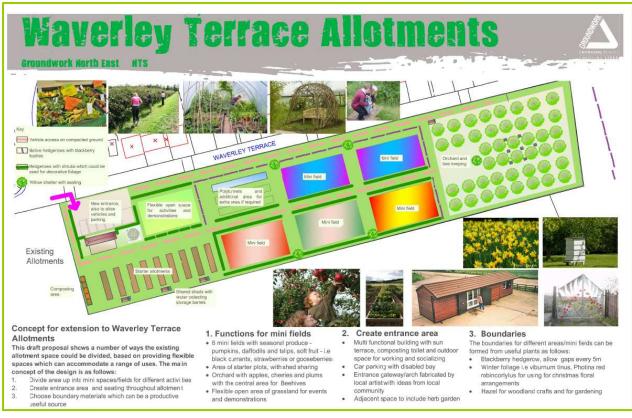
There are a large number of allotments spread throughout the town which provide a valuable amenity for local residents, allowing for the growth of fresh fruit and vegetables. This is not only beneficial in health terms but also helps in hard economic times when the cost of food is rising. The allotments across the town vary greatly in quality and maintenance terms with some suffering from security issues. Whilst on the whole most allotments are used for their proper use, there are issues with mis-use of allotments for others purposes such as keeping dogs or other animals. This obviously causes issues with noise but also stops the allotments being productive. This is a major issue especially as the Council has a large waiting list for allotments. Whilst there are no individual schemes for improvement or new allotments highlighted in the Action Plan currently, this is still a strategic aspiration and the provision and improvements to allotments will always be considered when considering planning applications. Where considered necessary contributions may be sought from developers. If schemes are drawn up by the Council, or through work with community organisations, those schemes will then be incorporated in the Action Plan.

There have such initiatives involving allotments as a way of providing opportunities for vulnerable and disadvantaged adults such as those with learning difficulties or mental health issues to make a contribution to their communities. Waverly Terrace Allotment Group has transformed a disused piece of land into a thriving community asset (see figure 19 below). The aim of the group is to:

"ensure Waverley Terrace allotment is a safe, practical and pleasant environment for partners and users of the site to learn, share skills and enjoy. We aspire to develop the facility into a sustainable and environmentally friendly resource that benefits partners and the wider community."

Building on its early successes the group expanded its remit to provide a number of placements under the Future Jobs Fund which has helped further develop the success of the allotment. Vegetables and plants have been sold and also provided to a local day centre in the town. All of this continues to benefit one of the 10% most deprived wards in the country.

It is important that waste refuge is available on allotments when waterbodies are adjacent to an allotment site. In order to protect these waterways, when undertaking future works to existing allotments or when providing new allotments this needs to be considered and built into the design.



(Figure 19: Waverly Terrace Allotment)

Private Gardens

It's now a proven scientific theory that gardens are vital for the survival of the UK's wildlife, and it's not just the big gardens that make a difference. Small gardens make up the majority of green space in Britain and make a significant contribution to the conservation of wildlife.

How much you contribute to and benefit wildlife depends on what you plant. As a general rule, gardens are a mosaic of habitats and the greater a garden's variety in terms of planting, structure and seasonal interest, the more likely it will attract a diversity of wildlife species. There are many garden features that will enhance the opportunities for wildlife, but providing food, water, shelter and a place to breed is essential.

Cemeteries

While the principle role of cemeteries is clear and must be respected and pre-eminent in their use, it is also acknowledged that they provide extensive areas of attractive green space which can have important secondary benefits. For example Spion Kop cemetery is of sub-regional importance for the coastal grassland that is found there and this has been recognised in its designation as a Local Nature Reserve in 2004. North Cemetery is a 12.6 hectare area of wooded greenspace in an area that is surrounded by dense housing and is very well used by local residents for walking. Seaton Cemetery is

frequented by bird watchers as its situation as the closest area of mature trees to the coast attracts a range of migrant birds.

Historic environment

Heritage assets seldom exist in isolation. They have associations with other assets and they also have settings or landscape context. For example a group of houses will often sit around a formal square sometimes enclosed by railings accessible to only a few. By contrast villages such as Greatham and Elwick were developed around village greens and grassed spaces open to all with the villages themselves surrounded by a broad rural fringe separating them from the town. Areas within the town such as Summerhill provide vital recreational space but it also serves to allow the research and preservation of a key archaeological site in the form of the remains of Catcote Village.

These examples demonstrate that as well as providing a viable resource, the historic environment brings many tangible and intangible benefits to green infrastructure. It can help define a place and connect people to traditions and values. Such concepts can be used to animate areas and help to create or regenerate neighbourhoods and communities. The historic environment can provide 'ready-made' green infrastructure that underpins other benefits/agendas. For example the formal space of Ward Jackson Park provided an opportunity to restore a park but in doing this much wider benefits were fulfilled in regenerating an area and providing a wider offer for visitors to the park.

In order to ensure that the historic environment is accounted for the Historic Environment Record and Historic Landscape Character mapping will be used to ensure that it is taken into consideration when maximizing opportunities to incorporate green infrastructure into schemes. Green infrastructure can therefore be an important mechanism for protecting heritage assets and their landscape settings and for increasing public access to and appreciation of them. At the same time the historic environment can add greatly to the richness, scope, diversity and physical extent of green infrastructure networks.



(Figure 20: Hospital of God)

Investment in Green Infrastructure

Ongoing investment is critical in GI to ensure that all forms of GI are provided to the best possible standard. It is not only Council funding that will provide crucial investment into GI and the Council continues to work with a wide range of stakeholders, community groups, 'friends of' groups and other organisations, listed below in order to access various sources of funding both to aid in the provision and enhancement of GI and also in terms of maintenance which, given the current government reductions in Local Authority budgets, will be crucial over the coming years:

- Council: funding usually for maintenance;
- Central government: funding for service delivery;
- Government Agencies: from agencies like Natural England, Environment Agency, Sport England;
- The Football Foundation
- National Governing Bodies for Sport such as the Football Association, the RFU, England Hockey etc
- European Union: funding usually has to be matched by the Council;
- Rural Development Programme: from the Government for agri-environment schemes in the rural area;
- National Lottery Fund: external partners bid for funding from the Big Lottery Fund and the Heritage Lottery Fund;
- Local Transport Plan: from the Government to provide and/or improve the rights of way network and sustainable transport corridors;
- Developer contributions/Community Infrastructure Levy: used to provide, improve and/or maintain green space from new development;
- Landfill Communities Fund: landfill site operators contribute funding to carry out projects that meet the environmental objects of the Landfill Tax regulations;
- Private sector funding: includes sponsorship of a green space or feature like a roundabout;
- Conservation trusts: projects are delivered by groups like the Tees Valley Wildlife Trust;
- Co-operative ownership: community management of spaces like allotments allows committees to bid for external funding;
- Charitable Trusts: funding could be invested and the income generated used with other resources so the Trust can manage the space; and
- Income-generating opportunities: includes rental income from businesses such as cafés and restaurants, sports facilities and the use of greenspaces for events, weddings and private functions.
- 'Friends of' groups which are crucial in the ongoing provision of various elements of GI in Hartlepool.

The various studies and records that are kept by the Council help to identify areas of greatest need and are therefore used to help inform the Action Plan for investment in GI.

Contributions which can be secured as part of the planning process on applications for housing (and to a less extent other forms of development) can be used, within the vicinity of those developments, to seek improvements to GI considered necessary as a result of those developments whether that be in the form of planting, biodiversity improvements / habitat creation, GI to tackle climate change issues, walkways, recreational facilities or sports facilities.

It must be noted that these contributions are also highly dependent on the economic situation at the time. Whilst contributions will always be requested where considered necessary, if an applicant can show in viability terms that it is not feasible to provide the amount requested contributions can be reduced if it is considered the other benefits of a development outweigh the benefit of the GI contribution. As such it is very hard to gage the levels of funding for distinct elements of GI that will be drawn down through this source and it is often used to help provide match funding for schemes which are to be delivered through other sources.

For most forms of publicly accessible GI in the borough, the Council is the main organisation with the responsibility for the maintenance and management of these spaces including parks and gardens, play areas, the beaches and coastal margins and the green wedges. The delivery of new GI must be considered against the long term maintenance liabilities it will bring. Less intensive management regimes, such as wildflower meadows or woodland planting can deliver cost savings as well as being of great benefit to biodiversity and, where appropriate, should be considered. A critical element of the Action Plan which accompanies this document will be the formulation of a management plan for distinct elements of GI.

As each project is implemented a detailed management plan will be prepared with partners. The mix of stakeholders involved will reflect the necessary actions needed to secure its successful delivery. This will ensure that people with the appropriate skills are available to design projects, bid for resources, deliver the project and to secure its management. Available on the Council's website, these ongoing public documents/plans, will make it clear who has ongoing responsibility for management and maintenance and will include a key contact for each scheme should interested parties wish to ask questions in relation to them.

It is important to the success of this Strategy that measures are put in place to:

- evaluate the impact that the Strategy is having;
- monitor delivery of the Action Plan; and
- use this information to review both the Strategy and Action Plan in the medium and long term.

Each project in the Action Plan will have milestones and targets for delivery which will be used to update the Action Plan. The Green Infrastructure Project Group will monitor and review the Strategy and Action Plan; the results will be published in regular progress reports (at least biennial). Monitoring will be used to help show progress, identify areas where delivery of the Strategy is not taking place and provide vital information to feedback to partners and stakeholders.

A review of this Strategy will be considered where:

- There is significant change in European and national legislation, or national, regional or sub regional policy; or
- The Green Infrastructure Project Group considers that the Green Infrastructure Strategy is insufficiently effective in delivering its vision and objectives.

Who are the Green Infrastructure Project Group?

The project group will consist of representatives from the Council and other stakeholders such as Natural England, Tees Valley Wildlife Trust, Groundwork North East and neighbouring authorities where appropriate.

Appendix 1 - Commonly Used Green Infrastructure Definitions

Accessible greenspace: space for the public to use free of charge and without time restrictions; some spaces may be closed overnight.

Agri-environment scheme: provides funding to farmers and land managers to deliver environmental management of farmland, includes Entry Level, Organic Entry Level and Higher Level Stewardship Schemes.

Ancient woodland: woodland that has existed continuously since 1600 or before.

Biodiversity: variety of life including different plants, animals and micro-organisms, and the ecosystems which they are a part of.

Biomass: material from living or recently living organisms including trees and plants to be used directly or as biofuels to deliver renewable energy.

Buffer zone: area situated around the edge of a wildlife site or corridor or as a connecting zone which links areas, increasing their biodiversity value.

Carbon footprint: total amount of carbon dioxide emissions produced by a person, group, organisation town or country.

Climate change: effect of global warming on weather conditions and unpredictable variations in temperatures.

Community woodland: woodland that is provided for community use

Conservation Area: area of special architectural or historic interest, the character or appearance of which is desirable to preserve or enhance.

Ecosystem: relationships between living things, water, soil and people.

Ecosystem services: are the benefits healthy natural ecosystems provide

directly or indirectly including food, fresh water, clean air, climate regulation or pollination of crops.

Flood plain: flat-lying areas adjacent to a watercourse, where water flows in times of flood or would flow but for the presence of flood defences.

Green corridor: linear green space connecting different types of greenspace, can incorporate walking and cycling routes. Most are also wildlife corridors.

Green infrastructure: strategically planned and delivered interconnecting, visually linked network of public and private multifunctional green spaces, landscapes and natural environments in the urban and rural area used for recreation, biodiversity and food production, which supports natural, cultural and ecological processes, with benefits for people, wildlife and place.

Green infrastructure levy: sum paid by homeowners to be used to maintain greenspace in a new development.

Green wedge: open area between neighbourhoods which helps to maintain distinctive qualities. their separate Heritage asset: a building, monument, site. place or area of landscape positively identified as having a degree of significance meriting consideration in planning decisions. Heritage asset includes designated heritage assets (listed buildings, conservation areas, registered parks and gardens, and scheduled ancient monuments) and assets identified by the local planning authority (including local listing).

Landscape: consistent, distinct pattern of geology, landform, soils, vegetation, land use and settlements. Local Nature Reserve (LNR): designated by the Council and Natural England for its special local wildlife or geological value and which provide people with opportunities to learn about nature or enjoy it.

Local Wildlife Site: designated by the Council for its wildlife importance.

Multifunctionality: the ability of a space to perform more than one greenspace function at the same time.

Priority habitats and species: habitats and species of principal importance identified in the UK and Tees Valley Biodiversity Action Plans.

Protected habitats or species: protected by national legislation because of their vulnerable status.

Public art: permanent or temporary works of art visible to the public either as part of a greenspace, a building or as freestanding artwork.

Public Right of Way: includes public footpaths (walking), bridleways (walking, horse riding and cycling) and byways (walking, horse riding and cycling and vehicles) where the public have the right to go.

Registered Historic Parks and Gardens: protected by English Heritage as being of special historic interest.

Renewable energy: energy that occurs naturally and repeatedly in the environment from wind, water, sun and biomass.

Scheduled Monument: nationally important monuments protected against inappropriate development.

Site of Special Scientific Areas Interest (SSSI): protected by the Government it is of national importance for wildlife, geology or geomorphology.

Special Protection Area (SPA): Internationally designated wildlife site. Surface water run off: excess rainwater or from drains that flow over land.

Sustainable Drainage Systems (SuDS): reduce and slow the quantity and rate of surface water run off from new development, dealing with it as close to the source as possible.

Wildlife corridor: linear greenspace that provides links for wildlife dispersal and movement, can have wider amenity benefits.

Wildlife friendly greenspace: space where naturalness dominates.