

Blue Sky Green Space

Understanding the Importance of Retaining Good Quality Parks and Green Spaces, and the Contribution they make to Improving People's Lives.

DRAFT

Introduction 2

Benefits to the individual 3

 Use and Perceptions 3

 Health and Well Being..... 3

 Children and Young People 4

 Older People 5

Benefits to the Community..... 6

 Stronger Communities 6

 Safer Communities..... 7

Benefits to Places..... 7

 Environment..... 7

 Energy and Climate Change 9

 Economy..... 10

DRAFT

Introduction

The arrival of a new coalition government is creating a very different landscape for public service delivery. Firstly we are facing a significant reduction in public expenditure and secondly we are seeing a fundamental shift to local decision making with a focus on devolution to councils, schools, GPs, business, communities and individuals. No longer will local government be accountable upwards to central government through national indicators and targets, inspection and intervention but we are entering a new era where local services will be more accountable to local people.

In this new landscape with a greater focus on efficiency, productivity and effectiveness expenditure on services will increasingly be judged in terms of the contribution they make in improving the outcomes that matter to local people; health and wellbeing, the local economy, community safety and a general sense of satisfaction with where people live.

Parks and green spaces will come under even greater pressure to show the contribution they make to these local priority outcomes and show in meeting these outcomes they do so as productively as possible.

Simple advocacy will not be enough. There will be a need for strong political and managerial leadership to make a case based on evidence and past performance, this leadership will need to get itself in the key partnerships where the priorities are defined and be able to contribute to arguments about how local problems can be solved rather than why money should be spent on parks and green space; managers and staff will need to better understand the new landscape they are working in, take responsibility for their own performance management and service improvement and show why investment in their services is what the community want and need. Managers will need to be open to finding and adopting quickly new ways of working, working across traditional service and administrative boundaries, working in different delivery arrangements with private sector partners, in trusts and social enterprises and with voluntary and third sector partners and responding to a world of commissioning.

This document outlines in the broadest sense the wide range of green spaces – from parks and gardens to city farms, country parks, woodlands and wildlife sites to play areas, allotments to urban plazas – and the range of benefits they bring, whether provided and managed by statutory agencies, local authorities or by community led and managed groups such as community gardens or “Friends Of” groups. Throughout this document, when making general points, we use the shorthand phrase “parks and green spaces” to represent the full spectrum of different and diverse green spaces that are available for communities to use and enjoy.

Many of the benefits provided by green spaces and highlighted in this document are equally applicable to streets where there are an abundance of street trees and permeable and well vegetated front and rear garden areas.

We suggest here that the benefits of green space provide a very cost effective means of promoting health and well-being, as well as a mechanism for increasing community and citizen involvement in volunteering. Imaginative use of green space also provides in many cases an excellent Social Return on Investment whilst increasing individual and community engagement.

This document is intended to serve three primary purposes:

- To provide a platform of evidence for all types of green space services at the local level, raising awareness of the inherently unique contribution that they make to the social, environmental and economic fabric of our towns and cities
- Provide the organisations that manage parks and green spaces teams with a framework for applying this evidence to enable them to position and make the case for the contribution that the service can make to local outcomes in order for them to collaborate more effectively during this period of unprecedented financial difficulty.
- Generating greater understanding of the unique contribution that community management of green spaces can make in developing a sense of ownership and community engagement.

Benefits to the individual

Use and Perceptions

Parks and green spaces improve people's lives¹ and make towns and cities better places in which to live². One study found that over 30 million people in England use them (many every day) making 2.5 billion visits every year³. Another, that the total number of visits to the natural environment during 2009/10 was calculated at 2.86 billion, an average of 69 visits per adult. It also revealed that during 2009/10, 11% of people visited the natural environment every day, while 22% visited several times a week, 21% visited once a week, 20% visited once or twice a month, 9% visited once every 2 or 3 months, 8% visited once or twice, and 10% never visited. It also found that proximity to green space is important and green spaces close to home provide places to enjoy the natural environment. Two thirds (66%) of visits were within 2 miles of home⁴.

Health and Well Being

Around 8% of annual deaths in Europe (at least one in 13) have been attributed to overweight and obesity. A major cause of obesity, and other health problems, is inactivity⁵.

There are few public health initiatives that have greater potential for improving health and well-being than increasing the activity levels of the population of England⁶.

¹ Parks and Squares: Who Cares Cabspace (2004)

² GreenSTAT visitor survey system: GreenSpace (2010)

³ Improving Urban Parks, Play Areas and Green Space University of Sheffield for DTLR (2002)

⁴ Monitoring of Engagement with the Natural Environment TNS Research International, commissioned by Natural England, Defra and Forestry Commission (2010)

⁵ NHS National Obesity Observatory

⁶ Chief Medical Officer, Department of Health, (2004)

Where people have good access to green space they are 24% more likely to be physically active⁷, this is regardless of people's income or social group, those who live furthest away from parks and green spaces are 27% more likely to be overweight or obese⁸. A brisk walk every day, in your local park, can reduce the risk of heart attacks by 50%, strokes by 50%, diabetes by 50%, fracture of the femur by 30%, colon cancer by 30%, breast cancer by 30% and Alzheimer's by 25%⁹.

One in four people each year will visit a doctor because of a mental health problem. Being more active and having more contact with the outdoors reduces stress and can prevent and reduce depression and anxiety. The NHS spent £6.5 billion on mental illness in 2002/03¹⁰. The more often a person visits urban open green spaces, the less often he or she will report stress-related illnesses¹¹ and living near parks, woodland or other open spaces helps to reduce health inequalities, regardless of social class¹².

If you live in a deprived inner-city area you have access to five times fewer public parks and good quality general green space than people in more affluent areas. In areas where more than 40 % of residents are black or minority ethnic, there is 11 times less green space than in areas where residents are largely white. And the spaces they do have are likely to be of poorer quality¹³. Minority ethnic groups and lower socio-economic groups are less likely to visit the natural environment. Those in DE Socio-economic groups represent 29% of the population but account for 47 % of those who never visit the natural environment. Those who never visit the natural environment are more likely to live in deprived neighbourhoods. 19% of those who never visit live in the bottom 10% of the Index of Multiple Deprivation (IMD) compared to 7% of those that visit at least once a week. In terms of ethnicity, 20% of those who never take a visit to the natural environment are from the Black and Minority Ethnic (BME) population and only 8% visit at least weekly, a lower share than would be expected on the basis that they account for 12% of the English population¹⁴.

Children and Young People

UK children are spending less and less time outdoors, in fact the likelihood of children visiting any green space at all has halved in a generation, and much of this now happens only under adult supervision¹⁵. The area around their homes which they know and use has fallen by 90% in 20 years. These trends are closely linked to a range of challenges facing society today, including those to do with childhood obesity and mental health, anti-social behaviour, and lack of environmental awareness and action¹⁶.

⁷ Technical Information Note TIN055, an estimate of the economic and health value and cost effectiveness of the expanded WHI scheme: Natural England (2009)

⁸ Jones A., Hillsdon M., and Coombes E., (2009), Green space use, access and physical activity: understanding the effects of area deprivation. *Preventative Medicine*, V40 (6), pp 500 - 505

⁹ Green Space and our Health; paper to London Greenspace Conference: Dr William Bird (2002)

¹⁰ Natural Fit: RSPB (2004)

¹¹ Landscape planning and stress. *Urban Forestry and Urban Greening* 2 (1): 1-18 Grahn, P. and Stigsdotter U.A. (2003)

¹² Effect of exposure to natural environment on health inequalities: An observational population study. Mitchell, R., & Popham, F. (2008) *The Lancet*, 372(9650), 1655-1660).

¹³ Urban Green Nation: building the evidence base, CABE 2010 cabeurl.com/cf

¹⁴ Monitoring of Engagement with the Natural Environment TNS Research International, commissioned by Natural England, Defra and Forestry Commission (2010)

¹⁵ Natural England Survey, (2009)

¹⁶ Wild Adventure Space, Natural England (2010)

Children suffering from Attention Deficit Hyperactivity Disorder (ADHD) benefit from activity in public spaces, especially green spaces. 85 % of green-space activities were said to improve the children's behaviour¹⁷. Children's self-discipline can be improved by 20% by simply having views of trees and vegetation outside their homes¹⁸.

Children who are bullied, punished, relocated or suffering from family strife all benefited from closeness to nature, both in their levels of stress and in global self-worth¹⁹.

Play patterns established in childhood are linked to adult health and health behaviour and leads to a healthier diet and generally better health²⁰.

85% of children want to take part in countryside activities with their school, and 89% of parents want their children to play outside more and to understand more about the natural environment²¹.

19% of the population utilise green spaces simply to share experiences with, and to entertain, their children or grandchildren²². 86% of parents (with young children aged 11 and under) say that on a nice day their children would prefer to go to the park than watch TV²³.

Young people themselves say that outdoor space is one of the things that they need to 'feel good and do well'²⁴. 15% of 16 – 24 year olds thought their local parks and open spaces were the aspect of their areas that needed most improvement, compared with 8 % of 55-74 year olds²⁵.

Older People

50% of older people are regular visitors to parks and green spaces²⁶. Elderly people who have close access to a place where they can relax and enjoy nature, show significantly greater satisfaction with where they live²⁷. Increased survival of senior citizens is linked with increased space for walking, nearby parks and tree-lined streets near their residence²⁸.

Dementia currently affects over 750,000 people in the UK and this is set to rise to 1.8 million by 2050²³. Access to an outdoor garden can reduce violent episodes²⁹, the garden linking past memories with the present, allowing some kind of order in a mind that is continually confused and concerned, providing improved intellectual and emotional wellbeing, enhanced social interaction, reduced agitation and wandering, improved functionality and greater preference and pleasure³⁰.

¹⁷ Taylor, A. F., Kuo, F. E. and Sullivan, W. C. (2001), 'Coping with ADD – the surprising connection to green play settings'. *Environment and Behaviour*, Vol. 33(1), pp54-77.

¹⁸ Taylor AF, Kuo FE, Sullivan WC Views of nature and self-discipline: evidence from inner city children *JEPV* (2001) 21 Supp

¹⁹ Investigating the links between the Natural Environment, Biodiversity and Mental Health RSPB Dr William Bird (2007)

²⁰ Professor Tony Cassidy, Janice Rushe and Melanie Giles from the University of Ulster (2010)

²¹ The Countryside Alliance Foundation: Outdoor Education

²² People, Places and their Green Space: A Segmentation of People who use Green Spaces Keep Britain Tidy (2010)

²³ Park Life research: Heritage Lottery Fund, 22 May 2003

²⁴ National Economics Foundation

²⁵ Urban Green Nation: Building the Evidence base CABE (2010)

²⁶ The Use of Public Parks in England. English Heritage, Countryside Agency and Sport England (2003)

²⁷ Natural Thinking Report by Dr William Bird, for the Royal Society for the Protection of Birds (2007)

²⁸ Tanaka A, Takano T, Nakamura K et al (1996). Health levels influence by urban residential conditions in a megacity — Tokyo. *Urban Stud* 1996; 33: 879–945.

²⁹ The importance of exterior environments for Alzheimers residents: Healthcare Management Forum: Mooney P and Nicell PL (1992)

³⁰ The therapeutic design of environments for people with Dementia: day K, Carreon D and Stump C (2000)

Research has shown that moderate exercise can help prevent brain connectivity declining with age. A group of people aged 59 to 80 year olds who had walked for 40 minutes three times a week showed significant improvement of default mode network connectivity and also performed better on certain cognitive tests such as decision making and multi-tasking³¹. Those who remain active are less likely to fall and cause injury and are more likely to continue being independent at home³².

Benefits to the Community

Stronger Communities

If parks and green spaces are well managed, research has shown that communities use their local spaces more, have better relationships with their local councils and take some pride in the area where they live³³. The number one ranked issue for good parks and public spaces is that they 'give a sense of community'³⁴ and only 3% of people disagree with the statement: "Parks and open spaces are a focal point for local communities"³⁵.

Examinations of family leisure have consistently demonstrated a positive relationship between involvement in family recreation and aspects of family strength³⁶. It has been suggested that, in modern society, leisure is the single most important force developing cohesive, healthy relationships between husbands and wives and between parents and their children³⁷.

It is a measure of peoples' commitment to green spaces and belief in their importance that there are so many examples of communities working together to transform their local space. The acts of improving, renewing or even saving a park can build extraordinary levels of social capital in a neighbourhood³⁸. For every one pound invested in environmental volunteering up to £4.00 of Social Return on Investment (SRI) will be achieved³⁹.

Over 7000 community based groups improved biodiversity and the local environment at over 50,000 places, and enriched the lives of over 660,000 people⁴⁰. Environmental volunteering is an ideal way to encourage active integration the BTCV works with socially disadvantaged groups which include young people at risk, people with health problems, travellers and homeless people⁴¹. 44% of all involved in our activities came from under-represented communities⁴². As another example, there are around 5,000 city farms, community gardens, allotments, school farms, orchards and related groups in the UK, engaging with as many as

³¹ Study published in Frontiers in Aging Neuroscience.

³² WHI Business Plan (1999).

³³ Urban Green Nation: Building the Evidence base CABE (2010)

³⁴ Manifesto for Better Places CABE Space (2004)

³⁵ GreenSTAT visitor survey system: GreenSpace (2010)

³⁶ Hawkes, 1991; Holman & Epperson, 1989; Orthner & Mancini, (1991)

³⁷ Couchman, 1988, as cited in Canadian Parks/Recreation Association, (1997)

³⁸ Philadelphia Parks Alliance, (2008)

³⁹ BTCV research

⁴⁰ Annual Review BTCV (2007 2008)

⁴¹ Inspiring People, Improving Places BTCV (2008)

⁴² Annual Review BTCV (2007 2008)

five million people a year. 15% of volunteers to the Federation of City Farms and Community Gardens have a disability⁴³.

Volunteering in green spaces is an overwhelmingly positive experience for young people. Nine out of ten young volunteers said they learnt something new, and 98% said they wanted to do it again⁴⁴.

Safer Communities

Residents who live near outdoor greenery are more familiar with their nearby neighbours, socialize more with them, and expressed greater feelings of community and safety than did residents lacking nearby green spaces⁴⁵. People who participate in cultural activities are 20% more likely to know 'many people' in their neighbourhood⁴⁶.

Recreation promotes positive contact between different ethnic groups and opens communication in a non-threatening atmosphere. Recreation opportunities provide a means for social interaction that can help to break down the barriers of unfamiliarity, fear and isolation⁴⁷. Sport and other cultural (or leisure) services can be a powerful tool to engage all sections of the community and break down barriers between them. People take part in leisure and cultural activities through choice. Marginalised groups are often more willing to engage with such activities than other government-funded activities⁴⁸.

The power of the physical environment to influence human aggression is well established. Crowding, high temperatures and noise have all been linked to aggression and violence. Contact with nature and green environments helps to relieve stress and fatigue and incidence of violence and aggression can be significantly reduced for residents living in green conditions when compared to those living in barren less green conditions. Aggression and violence are both reduced significantly in mothers that lived within a view of grass and trees compared to barren areas devoid of trees. Psychological aggression over the lifetime of the child was reduced significantly in areas with more nature⁴⁹.

Benefits to Places

Environment

Ecology, Nature and Biodiversity

Global biodiversity depends upon managing, protecting and enhancing local habitats and local ecosystems. Within urban locations the most valuable habitats are invariably found within the diverse range of urban green space; the woodlands, urban forests, ponds, rivers

⁴³ Membership Survey: Federation of City Farms and Community Gardens

⁴⁴ Inspiring People, Improving Places: BTCV (2008)

⁴⁵ American Planning Association, (2003)

⁴⁶ Taking Part: The National Survey of Culture, Leisure and Sport Adult and Child Report 2009/10

⁴⁷ The Conejo Recreation and Park District, Effects of recreation and park district on human development and other benefits
Excerpt from CRPD Draft Master Plan Update, (2010)

⁴⁸ Community Cohesion - an action guide, Local Government Association 2004

⁴⁹ Kuo FE and Sullivan WC (2001) Aggression and Violence in the inner city: Effects of Environment via Mental Fatigue. Environment and Behaviour 33 No4 July 2001 543-571

and riverbanks, parks and gardens, allotments and cemeteries, providing a rich variety of habitats for mammals, birds, insect, aquatic and plant life⁵⁰.

Air Quality

A mature oak can host up to 5,000 different species of invertebrate that will form the basis of a healthy food chain that benefits birds and mammals⁵¹. Large trees can help lower carbon emissions in the atmosphere by 2-3%, they can remove daily carbon dioxide amounts equivalent to that produced by two single-family dwellings and can generate 10-50% savings in cooling expenses and 4-22% savings of heating costs⁵².

Trees have been shown to remove substantial quantities of toxic particles such as lead⁵³, and can reduce concentrations of SO₂ and NO₂ in the air by 4-5%⁵⁴.

Air Cooling

Daytime temperatures have been found to be about 2-3°C lower in a large urban park than the surrounding streets⁵⁵ and the cooling effect of green spaces can be felt up to 100m from the site, this contribution towards mitigating 'heat island effect' depends on maintaining the vegetation within these spaces⁵⁶.

Water and Flood Management

In order for towns and cities to function properly as places where people live and work all year round, they need to be drained to remove surface water. During periods of heavy rainfall the risk of flash floods is high, putting lives, homes and businesses at risk and causing disruption to transportation and commerce.

When rainwater flows off roads, pathways and other impervious surfaces, it carries pollutants with it. When it enters into waterways it can cause ecological problems⁵⁷.

Philadelphia receives an average of 43.29 inches of rain per year. Its 10,334 acre park system is 81.3% pervious, the model developed by the Forest Service shows that Philadelphia's parks reduced rain water runoff in 2007 by 496 million cubic feet⁵⁸.

Landscape

The visual appearance and attractiveness of towns and cities is strongly influenced by its green space. Landscape is the meeting place of culture and environment, the places where what we see is infused with meanings past and present, engendering memories and feelings. Green space reconnects us to nature, with all of its intrigue and complexity of line, colour, shape, form, texture, movement and smell⁵⁹.

⁵⁰ XI World Forestry Congress: Significance of Green Areas to Biodiversity and the Environment, (1997)

⁵¹ The case for trees in development and the urban environment: Forestry Commission England, (2010)

⁵² Plants Actually Clean the Air, Diane Relf (1996)

⁵³ Trees in the Urban Landscape; Principles and Practice Bradshaw A. D. Hunt B. & Walmsley T., E & FN Spon (1995)

⁵⁴ Urban Woodland and the Benefits for Local Air Quality: Broadmeadow M. S. J. & Freer-Smith P. H: (1996)

⁵⁵ Urban Green Space Task Force: Green Spaces, Better Places, (2002)

⁵⁶ The Value of Public Space: how high quality parks and public spaces create economic, social and environmental value CABE Space, (2004)

⁵⁷ Sustainable Drainage Systems: An Introduction, Environment Agency

⁵⁸ Measuring the Economic Value of a City Park System: Trust for Public Land (2009)

⁵⁹ Your Parks: Urban Parks Forum, (2002)

The human psyche has retained a strong preference towards the natural landscapes of trees, grass and water; it is the view of choice, the vision we still find most appealing⁶⁰.

Energy and Climate Change

The proportion of adults considering climate change one of the top three most important issues facing Britain was about a quarter (24%) in 2009⁶¹.

Today, carbon dioxide emissions stand at 430 parts per million (ppm) compared to pre-industrial revolution levels of 280ppm. This increased concentration has already affected global climates and regardless of action taken now to reduce emissions, warming is predicted to continue to take place⁶².

Adaptation and Mitigation:

Green spaces and functioning ecosystems can also help in adapting to the extremes of climate change. Green areas have a less of a heat island effect than built-up areas providing opportunities for people to keep cool in hot weather. Green spaces also improve air quality contributing to reduced ground-level ozone, fine particulates and respiratory irritants. Functional ecosystem can also mitigate the risks associated with downstream flooding from extreme rainfall events⁶³.

A 10% increase in green cover can potentially eliminate the effects of climate change on increasing surface temperatures⁶⁴, 1 hectare of trees and shrubs can absorb 1 tonne of CO₂, equivalent to 100 family cars, and a single tree will produce enough oxygen for 10 people⁶⁵. The evaporation from a large tree is estimated to produce the cooling effect of 10 room-sized air-conditioners⁶⁶.

Trees moderate local microclimates – urban areas with trees are cooler in summer and warmer in winter and can help to alleviate fuel poverty. Well-positioned trees also improve the environmental performance of buildings by acting as a buffer or ‘overcoat’, reducing thermal gain in summer⁶⁷. Green spaces moderate urban temperatures, air under a tree’s canopy can be as much as 5-10°C cooler compared to full sun⁶⁸.

The rate of run off for surfaces with trees and grass is estimated to be 10-20%, compared to 60-70% for hard landscaped urban areas⁶⁹, a 10% increase in green cover could reduce the volume of surface runoff in extreme rainfall events by 14%⁷⁰.

In the UK, our food travels an amazing 30 billion kilometres each year. This includes imports by boat and air and transport by lorries and cars. Food transport is responsible for the UK

⁶⁰ Biophilia Hypothesis Wilson E. O: (1993)

⁶¹ Annual survey of public attitudes towards climate change and the impact of transport: The Department for Transport (2010)

⁶² Meeting the energy challenge: A white paper on energy Department of Trade and Industry (2007)

⁶³ Department of Health (2008) The Heatwave Plan for England. TSO. London

⁶⁴ The benefits of urban trees CABI Space

⁶⁵ The Land Trust

⁶⁶ Parks Victoria

⁶⁷ The case for trees in development and the urban environment Forestry Commission England, (2010)

⁶⁸ Adapted from the lecture “the healing garden: social research” PLSC100: Plants and Human Culture Barton, S, 2008, November 18,(2008)

⁶⁹ Green Spaces, Better Places Urban Green Space Task Force,(2002)

⁷⁰ Green infrastructure to combat climate change Community forests North West

adding nearly 19 million tonnes of carbon dioxide to the atmosphere each year⁷¹. In recent years there has been an upsurge in interest in 'growing your own', as well as an awareness of other issues such as health and well-being and climate change. Many allotment sites are under strain, with some estimates suggesting that there are now 100,000 people on waiting lists for the current 300,000 plots⁷².

Economy

Business Attraction and Retention

Owners of small companies rank recreation, parks and open spaces as the highest priority in choosing a new location for their business⁷³, corporate CEOs say quality of life for employees is the third most important factor in locating a business and skilled and educated employees consider quality of life to be as important as salaries⁷⁴.

Increase in Property Value and Local Taxes

Attractive well-managed parks and green space directly add value to adjacent properties, and this in turn generates additional property tax revenue, a study in the North West of England showed proximity to city parks was found to augment property prices by nearly 20% for a detached property⁷⁵.

In Ontario, a statistical analysis of data for two neighbourhoods showed that the increase in property values equated to an increase in property tax revenue of 8%⁷⁶.

Redevelopment and Renewal

The contribution and added value of green space to regeneration is well established throughout the world and successful examples can be seen in Melbourne, Toronto, New York, Minneapolis, Paris, Barcelona and Chicago.

In Chattanooga, a \$355 million makeover, centred on the acquisition and improvement of green space parks and trails, has generated 1,280 full-time jobs and 555 part-time jobs. Property values are up more than 124%, tax revenues are up 99% and the number of businesses is up 117%⁷⁷. Millennium Park in Chicago is expected to bring to the city over the next 10 years \$1.4 billion in enhanced property values, roughly \$2 billion in tourism, and hundreds of millions more in increased retail and business enhancement⁷⁸.

Mile End park in the London Borough of Tower Hamlets has made a significant contribution to the local economy through the inclusion of new retail units within its design and generating

⁷¹ Climate Choices Children's Voices and Food Climate research Network

⁷² Federation of City Farms and Community Gardens

⁷³ Characteristics of companies that considered recreation/open space to be important in (re)location decisions, Crompton, Love and Moore 1997 Journal of Park and Recreation Administration 15 (1): 37-58

⁷⁴ Trust for Public Land Attracting Investment (1999)

⁷⁵ Neill Dunse Urban parks, open space and residential property values RICS (2007)

⁷⁶ Healthy by Nature: Up Close and Personal Investing in Community Parks, Open Space and Nature Education, Alberta Recreation and Parks Association (2009)

⁷⁷ Open space investments pay big returns: Trust for Public Land (1999)

⁷⁸ Will Rodgers Urban Parks – the New ROI A presentation by Will Rodgers for Lambda Alpha, Chicago (5/16/07)

additional customers for local retailers and caterers. In the longer term, it may also help with other business retention and attraction.

Health

The cost to the UK economy of overweight and obesity was estimated at £15.8 billion per year in 2007⁷⁹. Less active lifestyles have led to an increase in preventable diseases which cost the NHS £8.2 billion annually⁸⁰. A permanent reduction of 1% unit in the UK sedentary population (from 23% to 22%) is estimated to deliver a social benefit of up to £1.44 billion per year⁸¹. The NHS in Scotland could save up to £85 million a year if just 1% of inactive people took adequate exercise⁸².

The NHS spent £6.5 billion on mental illness in 2002/03, being more active and having more contact with the outdoors reduces stress and can prevent and reduce depression and anxiety⁸³. Green exercise is free and does not carry the potential for negative side effects, unlike anti-depressant drugs which cost £750 million a year⁸⁴.

Recreation

While green spaces provide much indirect benefit, the value of the recreational activities they provide, normally free of charge, can be calculated. Economists call these activities “direct uses” and can calculate the value by knowing the cost of a similar recreation experience in the private marketplace.

Using this method, a study showed that Boston’s 5,040 acres of parks and the pastimes these parks offer provided a total of \$354,352,000 in direct use value⁸⁵.

Environment

The management of surface water run-off through hard-engineering solutions is an expensive business, and the contribution that urban green space makes has a substantial economic value. Philadelphia storm water management cost is 1.2 cents (\$0.012) per cubic foot. In 2007, the park system, which reduced runoff by 496 million cubic feet, provided a storm water retention value of \$5,949,000⁸⁶. Trees in the City of Atlanta have prevented the need for \$883 million in storm water retention facilities⁸⁷ and storm water cost savings due to parks in Denver has been calculated at \$804m⁸⁸.

Washington’s 4,839 acres of general tree cover removed 244 tons of pollutants; the financial saving was \$1,130,000⁸⁹, whilst in Philadelphia, the economic savings of the park system in reducing air pollution was estimated at \$1,534,000⁹⁰.

⁷⁹ NHS National Obesity Observatory

⁸⁰ Department of Health, At least 5 a week: Evidence on the impact of physical activity and its relation to health (2004)

⁸¹ Economic Benefits of Accessible Green Spaces for Physical and Mental Health: Forestry Commission (2005)

⁸² Nature is good for you! ECOS, Vol. 24(1) pp29-31, Dr. William Bird, (2003)

⁸³ Natural Fit’ RSPB (2004)

⁸⁴ Get outdoors, get active: Open Mind article by Marcus Roberts for Mind: issue 145, May/June (2007)

⁸⁵ Measuring the Economic Value of a City Park System: Trust for Public Land (2009)

⁸⁶ Measuring the Economic Value of a City Park System: Trust for Public Land (2009)

⁸⁷ Economic Benefits of Parks and Open Space: Trust for Public Land, (1999)

⁸⁸ The Economic Benefit of Denver’s Park and Recreation System: Trust for Public Land, (2010)

⁸⁹ Measuring the Economic Value of a City Park System: Trust for Public Land (2009)

⁹⁰ How much value does the City of Philadelphia receive from its Park and Recreation System? Trust for Public Land (2008)

Tourism

Many towns and cities rely on tourism to provide a substantial part of their annual revenue. In most cases, the public parks and green space in, or immediately around, the town contribute to its attractiveness as a tourist destination.

We know that people making leisure trips to the natural environment make a contribution to the economy both from direct and indirect expenditure associated with the trip. The majority of visits to the natural environment (75%) involve no expenditure. Of the estimated 709 million visits involving expenditure, the total spend by visitors to the natural environment between March 2009 and February 2010 is estimated to be £20.4 billion. Although only 7% of all visits were to seaside towns, this type of destination accounted for a quarter of all expenditure. Apart from seaside trips those involving most expenditure tended to be longer trips and those with children in the party⁹¹.

⁹¹ Monitoring of Engagement with the Natural Environment: TNS Research International, commissioned by Natural England, Defra and Forestry Commission: (2010)

DRAFT

GreenLINK

GreenLINK brings together, at a national level, organisations that are active in the parks and green space sector. Participating organisations include charities and trusts, social enterprises and other non-governmental bodies. GreenLINK provides an open forum where knowledge can be shared, duplication can be avoided and robust and effective responses to challenges that impact on the sector can be jointly developed. Government Agencies and non-departmental public bodies are welcome and regular observers, expanding access to information and resources and making useful connections across different government departments, agendas and initiatives.

GreenLINK is hosted by GreenSpace the national charity working to improve parks and green spaces by raising awareness, involving communities and creating skilled professionals.