Scottish Wildlife Trust Briefing

National Planning Framework debate

- Giving a clear steer towards creating quality places

Creating places where people want to live and do business

The Scottish Wildlife Trust believes that the creation of high quality places where people want to live their lives should be a priority of National Planning Framework 3 (NPF3).

The environment is the context for all activity, be it economic or otherwise, and any meaningful national planning strategy should facilitate and promote the provision of accessible, high-quality, biologically diverse and connected green infrastructure. 'Designing in' nature-rich and connected green (or blue) infrastructure across Scotland (which we would collectively call - a national ecological network), be it to benefit urban or rural communities, would bring health, social and economic advantages to Scotland.

It is the quality of the green infrastructure in and around settlements that can really make or break a place. Fifty years of experience has taught us that wildlife rich places – be they urban or suburban – create attractive, vibrant, liveable neighbourhoods and foster community pride.

Society depends on the benefits nature provides

The vital role green infrastructure plays in adding to society's prosperity is recognised by the EU Commission who have stated:

Human society depends on the benefits provided by nature such as food, materials, clean water, clean air, climate regulation, flood prevention, pollination and recreation.[1]

The Commission defines green infrastructure as: *a strategically planned network of high quality natural and semi-natural areas with other environmental features, which is designed and managed to deliver a wide range of ecosystem services and protect biodiversity in both rural and urban settings.*

In Scotland, it has been estimated that the total value of 'natural services' (what we would call ecosystem services) harnessed from our green infrastructure, is worth in excess of £21 billion to Scotland's economy per year.[2]

The Scottish Wildlife Trust believes that Scotland can lead the way in European planning by giving a clear steer in NPF3 towards enhancing and protecting Scotland's natural capital through planning for well-connected green infrastructure. Because of this we would like to see recognition included in NPF3 of the need for a national ecological network.

Green infrastructure delivers social, economic and environmental rewards

High quality and biodiverse outdoor space enriches the health and wellbeing of adults and children alike.[3,4] The eminent Harvard professor and world renowned environmentalist, E. O Wilson states that:

Nature holds the key to our aesthetic, intellectual, cognitive and even spiritual satisfaction.

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[1] Building a Green Infrastructure for Europe available at: http://ec.europa.eu/environment/nature/ecosystems/docs/green_infrastructure_broc.pdf
[2] UK National Ecosystem Assessment (2011) The UK National Ecosystem Assessment Technical Report. UNEP- WCMC, Cambridge
[3] Moore, R. C., & Cooper Marcus, C. (2008). "Healthy planet, healthy children: Designing nature into the daily spaces of childhood." In S. Kellert, J. Heerwagen & M. Mador (Eds.), Biophilic design: Theory, science and practice. Hoboken, NJ: John Wiley & Sons, Inc.
[4] Kellert, Stephen R. "Nature and Childhood Development." In Building for Life: Designing and Understanding the Human-Nature Connection. Washington, D.C.: Island Press, 2005.

Such supposition is backed by an increasing body of evidence which shows that access to high quality urban greenspace is essential for physical activity,[5,6] positive mental well-being[7] and healthy childhood development.[8]

Designing in high quality greenspace is not a trivial matter when it is known in Scotland that at least one child in five is overweight and one in ten is obese or severely obese.[9] Research also shows that income related health inequalities are reduced by having easy access to high quality greenspace.[10]

Contact with nature has also been shown to reduce the severity of childhood Attention Deficit Hyperactivity Disorder;[11] indeed Richard Louv, the author of *Last Child in the Wood* describes woodland's as Nature's Ritalin, in that such contact with nature has the ability to bring a sense of calmness and tranquility. He goes on to state that:

Time in nature is not leisure time; it's an essential investment in our children's health (and also, by the way, in our own).

In a rural setting, investing in green infrastructure by restoring peatlands and native woodlands could deliver multiple benefits such as locking up carbon, providing cleaner water, slowing water run-off in a catchment and increasing biodiversity.

Connecting rural areas to the urban hinterlands and into the heart of urban 'grey spaces' would make Scotland's landscapes more permeable to wildlife. Across Scotland, creating a strategically planned network of natural and semi-natural areas would also help build on success stories such as the spreading south of the pine marten - which is now found in the Central Belt on a Scottish Wildlife Trust urban reserve in Cumbernauld - and gives people a greater chance of having special wildlife encounters.

The financial benefits from nature based solutions- especially with the impacts of climate change looming - are not trivial: flood prevention could save the Scottish economy at least £32 million every year and crop pollination is worth about £43 million per annum.[12] Recent modelling of Glasgow's air quality has shown that air quality could be improved by planting more street trees to filter out harmful particulate matter (PM10)[13] thus reducing costs to the NHS and improving quality of life.

Future proofing urban environments to the impacts of climate change

Adapting our urban environment to the impacts of climate change to ensure towns and cities remain 'liveable' will be a key challenge in the coming decades. So, delivering a national ecological network in an urban setting could provide a focus for the coordinated development of green infrastructure such as wildlife-rich greenspaces and parks, green roofs, tree-lined streets, cycle and walking routes and sustainable urban drainage systems. Incorporating these elements would help make the urban environment, in which more than 80% of Scotland's people live, more attractive to wildlife and at the same time provide natural 'free' services such as slowing water runoff, increased pollination, improved air quality and increased attractiveness of local neighbourhoods.

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[5] Tanaka A., Takano T., Nakamura K., (1996) Health levels influence by urban residential conditions in a megacity. Tokyo Urban Studies 33: 879–945.
[6] Sugiyama T., Thompson C.W., (2007). Older people's health, outdoor activity and supportiveness of neighbourhood environments. Landscape and urban planning. Vol 83 (2-3) 168-175
[7] De Vries S, Verheij R A and Groenewegen P (2001). Nature and Health .The Relation between health and green space in people's living environment. Euro Leisure-congress Netherlands
[8] Sadler et al (2010) Bringing cities alive: the importance of urban greenspaces for people and biodiversity. Urban ecology (ed. K.J. Gaston) Cambridge University Press, Cambridge.
[9] OBESITY INDICATORS 2013 Monitoring Progress for the Prevention of Obesity Route Map http://www.scotland.gov.uk/Resource/0043/00438827.pdf
[10] Mitchell R, Popham F (2008). Effect of exposure to natural environment on health and inequalities: an observational population study. The Lancet, Volume 372, Issue 9650, pp1655- 1660.
[11] UK National Ecosystem Assessment (2011) Page 386
[12] *Ibid*
[13] *Ibid*