National Planning Framework 3 - National Developments Proposal Form		
Proposer	Scottish Wildlife Trust_and RSPB Scotland	
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Date	12/12/12	
Title of development	National Ecological Network	
Elements to be covered	The National Ecological Network (NEN) is an ambitious, practical,	
by national	positive and long-term vision for enhancing Scotland's natural	
development status	environment and linked to this, the social and economic prosperity	
(list)	of its rural and urban communities.	
	The 'clemente' of a National Feelegied National (NEN) are listed	
	The 'elements' of a National Ecological Network (NEN) are listed below. It is important to note that the NEN would include protected	
	land managed with nature conservation as the main or joint	
	objective; however, it would involve much more than just linking	
	nature reserves and would operate at multiple geographical scales	
	across the country to include all forms of land management.	
	Physical elements:	
	Landscape scale conservation projects that are seeking	
	enhance species, habitats and ecosystems and the	
	connectivity between these	
	 Terrestrial and marine Protected Areas including SSSIs, SAC's and SPAs 	
	Ancient woodlands, native woodlands and forests under	
	sustainable management	
	 Land within the wider countryside where it can be demonstrated that management is benefiting biodiversity 	
	and increasing ecosystem health and resilience	
	Local Nature Conservation Sites and Local Nature	
	Reserves	
	Biologically diverse greenspace in towns and cities where	
	it can be demonstrated that management is benefiting	
	biodiversity and increasing ecosystem health and	
	resilience	
	Other smaller scale 'Green Infrastructure' such as green	
	roofs, Sustainable Urban Drainage Schemes and private	
	gardens where it can be demonstrated that management is benefiting biodiversity and increasing ecosystem health	
	and resilience	
	New developments which integrate biologically diverse	
	infrastructure into their design and delivery in such a way	
	as to contribute a 'net gain' of biodiversity	

Human elements:

- Events and activities that promote positive management of the physical elements listed above
- Events and activities that encourage participation and engagement with delivering the NEN

Delivery of the network would be through a wide range of mechanisms including but not limited to:

- The development of an NEN map which would include existing elements (see above) and identify areas of strategic opportunity for further development of the NEN.
 The map would be an opportunity map rather than a masterplan and work at national, regional, local and neighbourhood scales.
- Creation, enhancement and management of public greenspace to benefit people and wildlife
- Creation, enhancement and management of nature reserves, including linking these with other Green Infrastructure
- Policies to encourage habitat restoration, connectivity and creation in Local Development Plans
- Application of innovative design which benefits species and habitats within new and existing built infrastructure
- More strategic delivery of mitigation and compensation, for example as required by the Habitats Regulations
- Incentives, agri-environment schemes and greening of Pillar 1 of CAP used to improve the biodiversity in farming and forestry sectors
- Public engagement to encourage participation by householders, schools, community groups and other stakeholders

Anyone who owns or manages land could contribute to the NEN.

Fit with criteria and statement of more than regional importance (guide - 500 words) The NEN proposal would be of national importance as it would be delivered across the whole of Scotland and as such would significantly contribute to the Scottish Government's five strategic aims. In relation to the criteria set out in the NPF3 guidance, the NEN would play a major part in achieving:

An 80% reduction in emissions by 2050

The NEN would provide significant opportunities for carbon sequestration and storage. Peatland restoration projects, sustainable forest management and creation (linked to the Scottish Forestry Strategy) and improvements in soil carbon storage through modified agricultural practices would all contribute to the NEN.

In economic terms, if Scotland were to meet its biodiversity targets of restoring peatlands, the market value of the carbon stored would be c. £70 million per annum.¹

Skills development, reducing unemployment and job creation

The proposal would stimulate 'green collar' jobs within an emerging green economy across Scotland.

Delivery of an NEN would require a skilled workforce including land managers, ecologists, architects, landscape architects, planners, engineers. In addition, maintenance and construction workers would be needed to deliver new forms of green infrastructure such as green roofs and sustainable urban drainage systems, along with the more traditional habitat creation / restoration projects. Crucially, these jobs would be created across the whole of Scotland.

Improving Scotland's environment would make it a more attractive place in which to live, work and invest.

The NEN will help Scotland make full use of its outstanding 'natural classrooms' and align with the Curriculum for Excellence. In time, Scotland could become a world leader in sustainable landuse principles and design.

- Strengthening Scotland's links with the rest of the world

Ecological Networks have already been developed in Europe for example the Pan-European Ecological Network. The Council of Europe sees ecological networks as a way of allowing "a suitable and sustainable use of natural resources through the interconnectivity of their physical elements with the landscape and existing social / institutional structures."

Creating an attractive, biodiverse, environment will also make Scotland a more attractive place to do business and increase its draw as a premier tourism destination. It would also help create neighbourhoods and landscapes which are attractive to investment and entrepreneurial talent, helping Scotland's international economic competitiveness and resilience. It would also show Scotland as being at the forefront of nature conservation and sustainable development, improving Scotland's brand image.

- Improving our digital, transport, utilities or green infrastructure networks

Delivering the NEN would require significant development of green infrastructure across Scotland and would build on the good work already started by the Central Scotland Green Network. It would transform the way we view green infrastructure and how we link it spatially.

This NEN would coherently draw together many other large scale ecological initiatives with national policy support such as peatland and forest restoration programmes.

- Adapting to or mitigating the effects of climate change

A NEN would contribute to the preventative spend agenda by mitigating the effects of climate change and allowing Scotland to adapt more easily to future change. The 2006 Stern Review highlighted that if we don't invest resources now in tackling climate

change, spend in future years will be crippling. As an example, it is estimated that the damage caused by river flooding costs the Scottish economy £32 million every year.² If towns and cities were made more resilient by 'designing in' green infrastructure, flood risk could be substantially reduced.

An NEN would connect habitats and greenspace across Scotland's landscape, allowing species to move more easily between habitat patches, decreasing the likelihood of species extinctions, and improving ecosystem health and resilience in the face of climate change.

- Improving the quality of the built or natural environment

The NEN will create high quality green places close to home, which will allow communities to connect with the environment, increasing the feeling of ownership and pride in their local area. This will help lower antisocial behaviour and assist in the creation of stronger and safer places to live, offering improved opportunities for a better quality of life. Access to nature has also been shown to lead to a drop in crime rate. ³

In addition, research published in *The Lancet* showed that residents with easy access to high quality greenspace experience benefits such as improved health from increased physical activity and improved air quality. 4

The NEN would complement the creation of sustainable travel routes and areas for outdoor recreation and learning. This would create opportunities for increased physical activity and conservation volunteering. Both mental and physical health improvements are correlated with quality green infrastructure. 4

Developing an NEN would contribute to preserving and enhancing the natural environment and help to restore ecosystem health. The benefits of healthy, biodiverse ecosystems and the services they provide, such as clean water, productive soils, flood amelioration, carbon storage and recreation facilities, are well documented. It has been estimated that the total value of these services to Scotland is in excess of £21 billion per year.⁶

The NEN would also provide possible mitigation and compensation options for other national scale developments. It is likely that at a delivery level, the NEN would be focused on landscape units where collaboration between land managers, local authorities, conservation bodies and industry can work together to deliver enhancement and restoration. These will include the further development of established approaches such as Living Landscapes (http://scottishwildlifetrust.org.uk/what-we-do/living-landscapes/) and Futurescapes (http://www.rspb.org.uk/futurescapes/) initiatives and other large scale restoration projects.

Conclusion

An NEN would build on the good work already undertaken by the Central Scotland Green Network (CSGN) but would extend this benefit across Scotland. There are specific challenges in central Scotland and it is essential that the CSGN retains its national

	development status as it moves further into its delivery period. However, the NEN would differ from, and compliment, the CSGN In particular, the NEN would have a more central focus on delivery for biodiversity, albeit with the very valuable socio-economic benefits that this would bring across the whole of Scotland. The spatial nature of the NEN makes NPF3 (the key document
	which takes forward the spatial elements of Government policy), the most suitable vehicle for establishing the importance of the NEN. NPF2 recognised the value of the creation of national ecological networks (para 96) but stopped short of making this a National Development. The elevation of the existing policy support to national development status would be a logical progression as part of the overall evolution of the NPF.
	Full list of references available on request
Location (description, map reference, or map)	All of Scotland would be included but it is important to emphasise that this is a long term vision that would have to involve appropriate levels of planning. A map is included in Annex 2 which shows all of Scotland's already protected areas and land under the ownership of some of the larger conservation bodies.
Public Engagement to date (guide - 100 words)	There has been positive direct and indirect stakeholder engagement with large scale ecosystem restoration projects such as the Coigach and Assynt Living Landscape Partnerships. Public engagement already happens directly at RSPB visitor centres located in Futurescape areas (such as Loch Leven for the Living Loch Leven Futurescape and Boat of Garten for the Caledonian Forest Futurescape).
	The 2011 Omnibus Study (commissioned by SNH) revealed that 94% of people questioned agreed that "Scotland's nature and landscapes are what makes Scotland special" and 76% of people agreed that "they would like to see more action locally to care for and enhance nature and landscapes in their area".
	Projects to deliver ecological networks at a landscape scale, including Living Landscapes and Futurescapes, have been proven to be very effective ways to engage local authorities, agencies, charities and local communities in partnership approaches to delivery.
Environmental Study / Assessment available? (yes / no)	No
If yes, what significant effects were identified	
Delivery timescale	The NEN would be a long-term goal and, similar to CSGN, would look forward to how it will have transformed Scotland's natural environment in 2050 However, work could begin almost straight away with the development strategy being drawn up over the next 2 years. In some areas much has already been delivered and can be expanded, such as around existing nature reserves in the Flow Country and the Cairngorms and urban sites such as Cumbernauld.
Development lifespan	Ongoing but concept and plans could be drawn up within 2 years
Consents required Visual representation of	Numerous Material is available for Living landscapes and Futurescapes. This

the development available? If yes, please list and state if provided.	could be developed further to support the NEN. Landscape change visualisations would be a key communication tool Both the Scottish Wildlife Trust and RSPB would be willing tohelp Scottish Government with this.
	Annex 2 shows a map that details Scotland's protected areas, it is recommended that GIS maps like these are used to show networks at different scales within the landscape.

Annex 1

List of References

- 1. Using data from IUCN Briefing: *Peatlands and Greenhouse Gas Emissions Reduction Opportunities* in Scotland and based on the EUA figure of £14 per tonne of carbon.
- 2. Morris, J. & Camino, M. (2010). Economic Assessment of Freshwater, Wetland and Floodplain Ecosystem Services, Report to the Economics Team of the UK National Ecosystem Assessment. UK National Ecosystem Cranfield University. Cambridge: Assessment.
- 3. Kuo, F & Sullivan, W. (2001). Environment and Crime in the Inner City: Does Vegetation Reduce Crime?. Environment and Behaviour. 33. Page 343.
- Forest Research. (2010). The Benefits of Green Infrastructure. The Forestry Commission. Available from http://www.forestry.gov.uk/pdf/urgp_benefits_of_green_infrastructure.pdf
- 5. Mitchell, R & Popham, F. (2008). Effect of exposure to natural environment on health inequalities: an observational population stud. The Lancet. 372. Pages 1655 1660.
- RPA & Cambridge Econometrics. (2008). The Economic Impact of Scotland's Natural Environment. Scottish Natural Heritage Commissioned Report No.304 (ROAME No. R07AA106).

Annex 2

Please refer to attached A3 Map