



**National Planning Framework for  
Scotland 2: discussion draft**

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## About the Scottish Wildlife Trust (SWT)

1. The Scottish Wildlife Trust (SWT) was founded in 1964 to take all appropriate measures to conserve the fauna, flora, and all objects of natural history in trust throughout Scotland. With 30,000 members, several hundred of whom are actively involved in conservation activities locally, we are proud to say we are now the largest voluntary body working for all the wildlife of Scotland. The Trust owns or manages 124 wildlife reserves and campaigns at local and national levels to ensure wildlife is protected and enhanced for future generations to enjoy.

## Introduction

2. SWT welcomes this opportunity to contribute to the development of National Planning Framework 2 (NPF2) and commends the NPF2 team on what to date has been an open and constructive consultation. In addition to this written response, we have also made direct representations through meetings with the NPF2 team and through contributions to one of the public consultation events.
3. For the sake of brevity, in responding to NPF2 we will focus our comments principally on issues we feel the document has not adequately covered. As a general point however, it is important to say that there is a great deal in the document we support and overall we feel it is well drafted.

## Strategic Issues

4. Whilst we understand that the two sections on 'Scotland Today' and 'Drivers of Change' need to be placed at the beginning of the document to set the context, this means that the most important messages of NPF2 – its **four key aims** (page 43) and the **eight key elements** (page 87) to be addressed in the action programme – get rather lost in the document. We recommend these are brought right to the forefront of the document and explained clearly and succinctly within a brief narrative at the beginning.
5. We support the four objectives, which reflect the Scottish Government's (SG) wider strategic objectives but would recommend the accompanying text in paragraph 146 makes a stronger connection between a healthy, productive natural environment, sustainable economic growth and people's quality of life. SWT believes that a **healthy environment is the foundation**, indeed a prerequisite, for a healthy, wealthy and positive Scotland. This assertion is amply demonstrated by abundant examples from urban, rural and maritime environments:
  - social problems and deprivation substantially higher in urban areas with poor natural and physical environments;
  - tourism income substantially higher in those parts of the country which have a richer natural heritage and landscape value;
  - coastal fishing communities financially and socially threatened due to historic overexploitation of certain marine resources;

## 2 Protecting Scotland's wildlife for the future

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6. More specifically, we would also like to see reference in paragraph 145 to **climate change adaptation** and the need to move towards an **ecosystem approach**<sup>1</sup> to land use management and planning, particularly in relation to the urgent need to build **ecological resilience**<sup>2</sup> in urban and rural environments. A practical expression of this approach will be to develop a **National Ecological Network (NEN)** supported by regional and local **multi-functional green networks** (mainly in urban and peri-urban areas) and **integrated habitat networks** (mainly in rural areas/river catchments). SWT strongly supports the inclusion of the NEN in the document and reference to developing regional network initiatives such as the Glasgow and Clyde Valley Green Network and the Central Belt Green Network.

## Climate change adaptation and the ecosystem approach

7. It is now widely accepted that climate change will have severe impacts on Scotland's natural environment, economy and society.<sup>3</sup> Climate change is therefore set to become one of the most significant issues for the planning system in the near future and we therefore recommend the document includes a substantive section on this topic, as well as making reference to climate change throughout the text.
8. SWT's policy focus has been on adaptation rather than mitigation (which our LINK partners are better qualified to comment on), and particularly the need to urgently implement 'no regrets' solutions to help biodiversity survive and reorganize in a rapidly changing environment. A recent report by the UK Biodiversity Partnership<sup>4</sup> identified a number of direct and current **impacts of climate change upon ecosystems** as evidenced from observational data and models of future trends. These include:
- changes in the timings of seasonal events, leading to loss of synchrony between species and the availability of food, and other resources upon which they depend;
  - shifts in suitable climate conditions for individual species leading to change in abundance and range changes in the habitats which species occupy;
  - changes to the composition of plant and animal communities;
  - changes to habitats and ecosystems, such as altered water regimes, increased rates of decomposition in bogs and higher growth rates in forests.
9. Following on from this work, SWT has identified a number of **key threats** to the healthy functioning of ecosystems in Scotland. All of these existing threats are likely to be greatly exacerbated by climate change. Some could, perversely, be made

<sup>1</sup> Defined here according to the Convention on Biological Diversity definition as a "strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way." See <http://www.cbd.int/decisions/?lg=0&m=cop-05&d=06> for more detail.

<sup>2</sup> Defined here as "the capacity of the ecosystem to absorb disturbance and reorganize while undergoing change so as to retain essentially the same function, structure, identity and feedbacks."

<sup>3</sup> See for example Climate Change: consultation on proposals for a Scottish Climate Change Bill. Scottish Government, January 2008.

<sup>4</sup> UK BAP Partnership (2007) Conserving biodiversity in a changing climate. Defra.

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significantly worse if climate change mitigation measures are not developed and implemented sustainably. The key threats to tackle are:

- **Habitat Fragmentation** - the impact of habitat fragmentation acting in concert with climate change will lead to species losses and potential functional breakdown of both terrestrial and marine ecosystems. This threat is greatest in highly fragmented lowland areas where the 'climate space' for many species is likely to change rapidly but lack of connectivity between habitats will mean many species, even if they are mobile, will be unable to move northwards in response to their habitats becoming unsuitable.
- **Development and infrastructure provision** – inappropriately located and badly designed developments can further fragment semi-natural habitats, making ecosystems in urban and peri-urban areas especially vulnerable to climate change. New and existing transport infrastructures are also a severe barrier to the movement of many species and, currently, are rarely climate change proofed. Soil sealing and manipulation of natural hydrological regimes associated with new developments can also exacerbate the impacts of climate change contributing to flash flooding, poor water quality and general erosion of valuable environmental capital.
- **Marine and coastal ecosystem pressures** - there are raft of existing threats to the marine environment. These include overfishing, the arrival of invasive non-native species, inappropriate coastal developments, increased coastal erosion (with sea level rise), diffuse pollution from both land and marine sources and new pressures arising from the need to develop offshore marine renewable energy. The cumulative impact of these threats is predicted to get significantly worse with climate change, even under best case scenarios.
- **Invasive, non-native species** - as climate space changes so will the species composition of Scotland's ecosystems. Some of the species which are already arriving from other parts of the world are likely to cause severe functional imbalances to both natural habitats and agricultural systems.
- **Unsustainable farming and forestry practice** - there are still many farms and forests in Scotland and Europe which are unsustainably managed. It is these which are most likely to be impacted by climate change as they are generally the least ecologically robust areas within the rural landscape. For example, farms without riparian buffer zones which are heavily dependant on manufactured fertilizers are likely to suffer from soil degradation and contribute to pollution (particularly nitrates) of freshwaters. Similarly, forests which are not managed using low impact silvicultural systems (such as continuous cover) are more likely to suffer soil loss and degradation, biodiversity loss and windthrow (associated with predicted increase in severe weather events).
- **Overgrazing and soil degradation** - the affects of overgrazing (mainly by red deer and sheep) in many parts upland Scotland are already causing erosion of peatland soils, particularly on blanket bogs which have been burned and drained in the past. Increased total winter rainfall, increased *intensity* of rainfall and summer droughts are likely to cause further erosion of these soils with potentially catastrophic impacts on peatland ecosystems, and the freshwater systems they drain into.
- **The disappearance of certain montane habitats** - as the climate warms, the often rare ecological communities associated with fragile montane environments

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are likely to be lost as species will not be able to move to new suitable climate space.

- **Pressures on ecosystems arising from climate change mitigation measures**
  - as Scotland responds to the climate crisis it will need more renewable energy. This is already placing heavy burdens on the terrestrial environment and will soon begin to affect the marine environment. Current impacts include: the incentivisation of biofuels planting without proper guidance or forethought of the ecological impacts; windfarms located on sensitive peatland soils or in areas of high bird biodiversity; the need for high impact transmission infrastructures to bring electricity from remotely located sources and new hydro schemes which could put extra pressure on freshwater ecosystems.

10. In order to tackle the impacts of climate change, action must be taken at all levels in the planning system and it is vitally important NPF2 provides both a strategic steer and some tangible solutions to climate change adaptation. SWT believes the overarching aim of climate change adaptation policy must be to *'ensure networks of healthy, resilient ecosystems supporting expanding communities of native species across rural, urban and marine environments'*<sup>5</sup>. By taking an **ecosystem approach** we can begin to rebuild the functional connections within ecosystems, make them ecologically resilient and thereby ensure they continue to provide the ecosystem services on which our economy and ultimately our societies and way of life depend. These services, which we recommend the document make reference to, have been usefully divided into four categories by the Millennium Ecosystem Assessment<sup>6</sup>:

- **Supporting services** - the services that are necessary for the production of all other ecosystem services including soil formation, photosynthesis, primary production, nutrient cycling and water cycling.
- **Provisioning services** - the products obtained from ecosystems, including food, fibre, fuel, genetic resources, biochemicals, natural medicines, pharmaceuticals, ornamental resources and fresh water;
- **Regulating services** - the benefits obtained from the regulation of ecosystem processes, including air quality regulation, climate regulation, water regulation, erosion regulation, water purification, disease regulation, pest regulation, pollination, natural hazard regulation;
- **Cultural services** - the non-material benefits people obtain from ecosystems through spiritual enrichment, cognitive development, reflection, recreation and aesthetic experiences – thereby taking account of landscape values.

## Specific Issues and comments on the text

### Local Nature Conservation Sites

11. Paragraph 146 only mentions designated sites and omits any mention of **local nature conservation sites** (LNCSs). It is important that NPF2 provides a positive steer to local authorities on the value of such sites. They can be just as important as formally designated sites in conserving biodiversity at the all important regional level.

<sup>5</sup> Natural Connections: a vision for rebuilding Scotland's wildlife. SWT. October 2006.

<sup>6</sup> See <http://www.millenniumassessment.org/en/index.aspx>

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LNCSs, together with designated sites and other biodiversity hotspots such as **UK BAP priority habitat types** should ideally form the ‘**key nodes**’ in wider, increasingly connected habitat networks.

## Decentralising decision making to the local level

12. Paragraph 147. Whilst we support the need for decisions to be taken locally (incidentally Principle 2 of the Ecosystem Approach), there is a vital role for **national strategies** in providing a strong steer on issues of national importance. By way of illustration, the Scottish Biodiversity Strategy will only be successful in achieving its vision of “*Scotland is recognised as a world leader in biodiversity conservation. Everyone is involved; everyone benefits. The nation is enriched.*” if all of Scotland’s regions are working coherently towards this ultimate goal. Scotland is a relatively small country and in ecological terms could almost be treated as a single ecosystem - hence the need for a *National Ecological Network*.

## Development Strategy

13. SWT supports the main elements as bulleted in paragraph 150, particularly those on climate change, natural and cultural heritage. We would make two suggestions to improve the text here. Firstly that **sustainable transport** is not just about mode of use and volume of traffic – the design of new infrastructure is also an important element of sustainability. We would like to see any new transport infrastructure incorporate designs which facilitate habitat connectivity (through for example the construction of strategically located ecoducts<sup>7</sup> and mammal tunnels) and create good quality new semi-natural habitat along transport corridors which link into existing green/habitat networks. Secondly (paragraphs 150 and 171), there should be an aspiration not just for affordable **new homes** in places where people live, but to make the design of these new homes greener (in terms of their contribution to enhancing biodiversity and sustainable urban drainage) and cleaner (in terms of their contribution to carbon emissions reductions and pollution more generally).

## The Cities and their Regions

14. Paragraph 152 would benefit from a definition of environmental quality (possibly for inclusion in the Glossary). In paragraph 153 we strongly support the reference to developing green networks and the range of “social, health and environmental benefits” this will bring. It would be worth making specific reference here to the contribution green networks will make to delivering UK, Scotland and local **Biodiversity Action Plan** targets and the **Scottish Biodiversity Strategy** - both of which are Government commitments and underpinned by Part 1 Sections 1 and 2 of the Nature Conservation (Scotland) Act 2004.

## Sustainable Growth

<sup>7</sup> See [http://www.eurosite-nature.org/IMG/pdf/051\\_ecoducts\\_natuurmonumenten.pdf](http://www.eurosite-nature.org/IMG/pdf/051_ecoducts_natuurmonumenten.pdf) for a fact sheet.

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15. Paragraph 160 makes reference to the economic and other benefits Scotland can derive from “high quality natural surroundings”. Social and economic trends would suggest that the ‘**natural capital**’ of Scotland could become increasingly important in the future and therefore needs careful management and where appropriate, strict protection. For example, the trend towards recreation in ‘wild land’ areas could see ever greater inflows of tourism revenue into rural areas as could remote workers moving into these areas largely due to their landscape and natural heritage value. Again, we make the point that one of Scotland’s principal assets is its natural environment and NPF2 should perhaps put greater emphasis on the importance of protecting and enhancing this asset.
16. There have been attempts at branding Scotland in the past (“Scotland the best small country in the world”) but SWT feels these have not always played to our obvious strengths. One of the great advantages that Scotland has over England and many other European countries is its (potentially) spectacular environment. The Government stands at a crossroads - there is a real opportunity to make **Scotland a leader and champion of sustainability and environmental stewardship** in Europe and NPF2 has a major role to play in fostering this emerging brand. Not only will this re-vamp Scotland’s ‘brand identity’ and international reputation (no more ‘sick man of Europe’), but it could be the key catalyst required for growing a sustainable economy, tackling social issues and combating climate change.

### Adapting the Built Environment

17. We strongly support reference in paragraph 174 on the need for greater energy efficiency including tightening building standards and decentralised energy systems. We also support the promotion of “high density, compact cities” as one important response to climate change – however, this must not be at the expense of quality greenspaces and networks which are vital for the liveability of our towns and cities, the physical and mental well being of urban people and the biodiversity of urban areas.

### Greening the Environment

18. We support reference in paragraph 181 to “increasing biodiversity through the development of green networks” and the value of vacant, derelict and even contaminated land for natural heritage. It might be worth stressing that post-industrial and similar land, if interpreted proactively and managed (often inexpensively with a light touch), can be transformed from being perceived as ‘waste ground’, to areas highly valued by the local community as thriving natural greenspaces. SWT manages such transformed sites, for example the Jupiter Urban Wildlife Centre<sup>8</sup> in the heart of industrial Grangemouth.
19. In paragraphs 183 we strongly support reference to the various regional green network initiatives and recommend NPF2 places a responsibility on all local planning authorities to develop similar initiatives. Similarly in paragraph 184 we support

<sup>8</sup> See [http://www.swt.org.uk/wildlife/popup\\_reserves/east/jupiter.htm](http://www.swt.org.uk/wildlife/popup_reserves/east/jupiter.htm)

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references to building “environmental capital” through the creation of a “national habitat network”. We recommend using the term **National Ecological Network** for the reason that the term ‘ecological’ is broader, and encompasses the flow of genetic material, species and communities of species as well as the functional connectedness of habitats. The term habitat network implies that the network is principally reliant on coalescing patches of semi-natural habitat. Whilst this would be a key aim of the NEN there are many other ‘non habitat’ elements to such a network, including non-natural open space, the built environment itself (particularly if buildings contain natural features such as green roofs) and the individual species within habitats (some of which are more mobile than others and can move through ‘patchworks’ as well as networks).

## **Flooding and Water Resource Management**

20. We welcome the emphasis on sustainable flood management (SFM) in paragraphs 243 and 244. You might like to expand the text slightly here to include SFM as a way of helping safeguard ecosystem services (see above) and contributing to the NEN, for example through better quality ‘blue networks’ (freshwater systems) as well as green/habitat networks, particularly through riparian woodland restoration and creation. Reference to Sustainable Urban Drainage Systems (particularly urban trees and green roofs which are much under used in Scotland) would also be useful.

## **Making it happen**

21. SWT strongly supports the inclusion of both the Central Belt Green Network and national habitat networks in the eight key elements in paragraph 299 (although we suggest slightly different terminology for the reason outlined above). We look forward to working with the NPF2 team, others in the Planning and Built Environment Directorate, relevant Government agencies and LINK member bodies in developing the concept and delivery of the NEN, including actions in the action programme.

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