

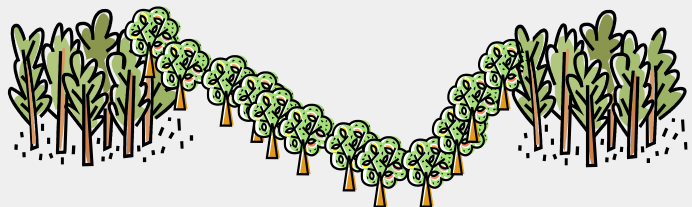
Creating and Ecological Network



Sussex
Wildlife Trust

Nature without borders

In the past, conservation concentrated on protecting surviving wildlife by creating nature reserves and protected areas. This was essential to prevent many of our rarest habitats and species from becoming extinct.



However, nature doesn't recognise fences. Most species need to move around and migrate, depending on seasonal and climatic changes. The otter, for example, between 1km and 40km of river territory with around 30 resting places and numerous feeding sites, depending on how healthy the rivers are. A small beetle may require just a few hundred metres as its territory, whilst a bird may need to migrate thousands of miles between breeding areas and overwintering sites. Although nature reserves are essential to protect key wildlife areas, the habitats which surround and link them are vital too.

Despite the existence of nature reserves, many wildlife species and habitats are still declining. Most species need areas of 'prime' habitat, interconnected through a patchwork of less suitable habitat through which they can move to get food, shelter and mates. Humans have created numerous barriers such as towns and roads which prevent wildlife moving within and between their prime areas of habitat. In order to help wildlife continue to thrive despite these barriers, we need to create ecological links, green corridors and networks of habitat across our landscapes.



A network of ponds across the countryside and in urban areas creates 'stepping stones' for species which can't travel far.

© C Smith

Is creating an ecological network complicated?

Not at all, it can be as simple as planting a hedge. A well placed hedgerow can form a connecting corridor between two otherwise separate woodland patches, allowing species like bats and dormice to migrate across otherwise inhospitable landscapes.

Similarly, wildlife friendly gardens can provide stepping stones through difficult urban environments: nectar rich plants, ponds and compost heaps are some of the simplest ways to help.

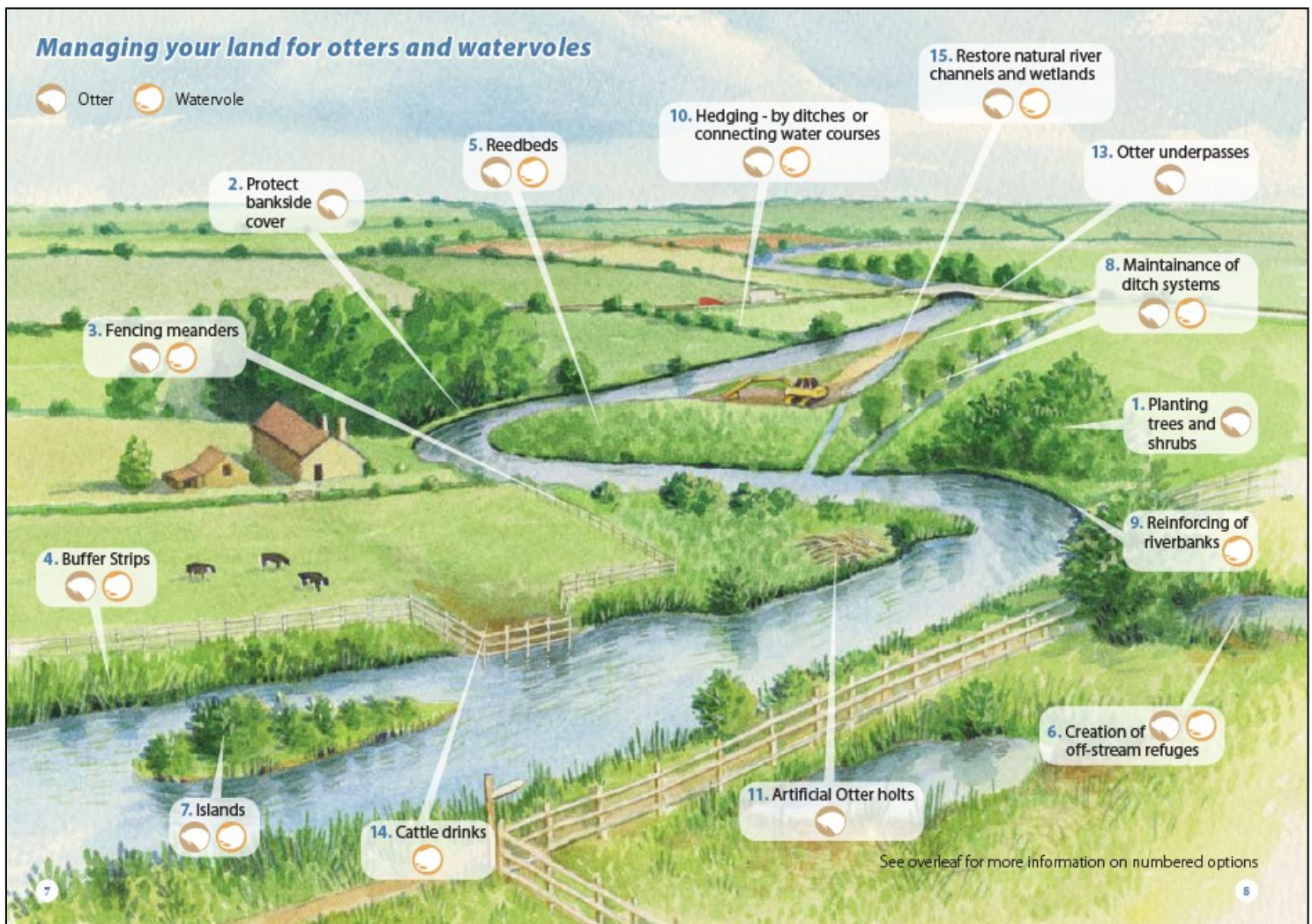
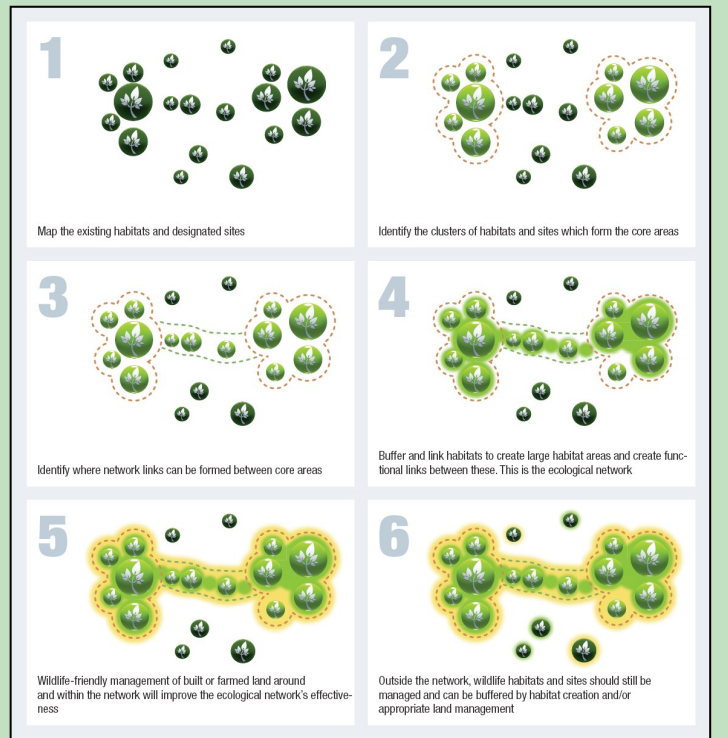
Ponds are a fantastic way to create an ecological network. Many pond-loving species such as damselflies can only migrate a small distance, so a scattering of ponds across a landscape are essential for their survival.

Creating an ecological network — it's easier than you think!

What do I need in my ecological network?

The diagram (right) shows how to create an ecological network at the landscape scale. By doing your bit at a local level, you can become a wildlife friendly link in the chain and create wildlife corridors. You might not be one of the 'core' areas for wildlife, but you can create an important buffer or link between two previously unlinked sites.

Look at your land and see where wildlife thrives. Work out how you can link different areas together, or create links with your neighbours. The diagram below gives ideas for creating wildlife corridors on rivers.



The nocturnal otter needs secluded wetlands, river edges and woodlands in which to feed, breed and shelter, but has to navigate around towns, roads and dry areas to get there. You can help by creating wildlife corridors on your land © Tim Berhard

Creating and ecological network — its easier than you think!

How can I create an ecological network?

Create a mosaic. Have wet and dry, 'open' and 'closed' habitats on your land — from open water and short grass, to flower rich meadow, hedgerows, and woodland. Cut a path in long grass to create short and long areas for different species.

Keep it local. Try to create habitats which are present in your local area i.e. don't create a conifer woodland when all around you is broadleaved woodland. Don't introduce invasive non native plants.

Cross borders! Create a network of wildlife corridors across land boundaries with your neighbours, to let wildlife move through the wider countryside.

Go manual. Try not to always use big machinery. Less intrusive methods of management such as grazing and cutting by hand are less damaging to wildlife.

Go organic. Avoid chemicals and fertilisers if possible. Pesticides can 'sterilise' a landscape and make it barren for wildlife. They can damage the ability of wildlife to reproduce, and reduce insects numbers, making it harder for birds and other animals to find food. Slug pellets can have repercussions on wildlife for miles around. Fertilisers can significantly reduce species diversity.



Perhaps your land provides a vital link between the land and the sea? © F Southgate



Even a pile of dead wood or a gravel bar in a river can provide a home or a stepping stone for wildlife such as insects and fish © F Southgate

Have old and new habitats on your land at different stages of growth. i.e. have ponds at all stages of succession from totally open, through to old, silted up ponds covered in trees, or new and ancient woodland.

Don't be too clean! We have a habit of 'tidying up'. Most of the messy bits are incredibly good for wildlife, such as standing and fallen dead wood and patches of young scrub and nettles.

Remove obstacles to wildlife. An area of concrete or an intensive arable field prevent wildlife moving around. Make concrete more wildlife friendly by replacing it with grass or a Sustainable Urban Drainage System (SUDS). Put buffer strips & beetle banks in arable fields.

Cut corners! Remember that wildlife doesn't travel in straight lines. Animals will travel whichever way gives them cover from predators, food and shelter. The easiest route for a newt to travel may be the line of 'least resistance' and 'least energy'. Think about whether you can fence the corners of your field or the meanders of a river to allow grassy and scrubby margins to grow, and to provide an easy route for wildlife.

Provide refuges. Think about whether you can create unmanaged edges which act as refuges for wetland wildlife when you have to manage other areas. A small patch of flowers and grass might be a great refuge for bees, butterflies and other useful insects along a man made pathway.

Use buffer strips — permanent vegetation on field margins, surrounding hedges and watercourses allow connectivity and provide physical barriers against pollutants and run off.

Creating and ecological network — its easier than you think!

Can I get help to create an ecological network?

Countryside Stewardship grants can offer payments for the creation of grass margins, good management of hedgerows, reducing use of chemicals, expansion of good wildlife features and the protection of core wildlife areas. Consult your local Natural England officer for details as the schemes are subject to change.

Sussex Wildlife Trust gives free advice to landowners on how to manage land for wildlife and how to create wildlife corridors. If you live in the West Weald in Sussex/Surrey, there is a designated project officer available to give you advice on how to help improve one of the best ecological networks in Sussex www.westweald.org.uk



How does your land fit into the wider ecological network?
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Wildcall (Free wildlife advice line)
01273 494777

Environment Agency
Ask for Fisheries & Biodiversity or Land
Drainage consent teams
03708 506506
www.environment-agency.gov.uk

References/Further Reading

- The Ecological Network Concept - www.eeconet.org/eeconet
- **Rob H.G Jongman & Gloria Pungetti (2004):** Ecological Networks & Greenways-Concept, Design & implementation
- **Scottish Wildlife Trust:** Review of experience with ecological networks, corridors and buffer zones- www.cbd.int/doc/publications/cbd-ts-23.pdf
- **ECNE:** Spen/Ken Ecological Networks- www.ecologicalnetworks.eu/html/visitors/aboutspenken.php
- www.parliament.uk/documents/post/postpn300.pdf

Sussex wetlands project promotes the sustainable management of rivers and the restoration of wetland habitats for people and wildlife

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