

“The River Devon Project is the first time that natural flood management has been tackled on an entire river catchment scale in the UK. It’s very exciting that the smallest mainland local authority in Scotland is leading the way for the rest of the country, delivering results that others in Scotland and throughout the UK can learn from and emulate.”

Gordon Roger, Development Services
Clackmannanshire Council

The River Devon Project is managed by Mountain Environments,
Spinningdale, Stirling Road, Callander FK17 8LE
e-mail: info@mountain-environments.co.uk
visit: www.mountain-environments.co.uk

WWF would like to thank the local farmers and landowners supporting this project.

Dr Wendy Kenyon from the Macaulay Institute will be studying the wider impacts of natural flood management on local communities. For more information contact w.kenyon@macaulay.ac.uk



Supported by
Clackmannanshire Council



WWF-UK’s Natural Rivers Programme is funded by HSBC as part of the global Investing in Nature programme. For further information visit the HSBC in Society section at www.hsbc.com

The River Devon Project is part of WWF UK’s Natural Rivers Programme. This programme is developing innovative techniques for the management and restoration of rivers and wetlands for the benefit of people and nature.

For more information visit:

www.wwf.org.uk/scotland



WWF Scotland

8 The Square, Aberfeldy
Perthshire PH15 2DD
t: +44 (0)1887 820449
f: +44 (0)1887 829453



Natural Rivers

The River Devon project

slowing the flow



*“How pleasant the banks
of the clear winding Devon,
with green spreading bushes
and flow’rs blooming fair!”*

Robert Burns, 1787

Tackling flooding – benefiting communities and wildlife

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crystal Devon winding Devon

“Crystal Devon, winding Devon”



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The last song Burns ever wrote, ‘Fairest maid on Devon banks’, celebrates the river Devon and its winding journey from its source high in the Ochil Hills down through narrow ravines, forestry and farmland, to meet the Forth and flow on to the sea.

The Devon has influenced the course of the area’s history – in the 18th and 19th centuries, the river’s water powered the textile mills and mill towns developed along the Devon valley.

In turn, human activities over the past few hundred years have altered the flow of water in the area. Changes in land use, artificial drainage for farming and forestry, the construction of weirs and confinement of the water have all restricted



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the river’s natural behaviour, making the area more susceptible to flooding and less attractive to wildlife.

The River Devon Project is a pioneering study to demonstrate best practices in sustainable flood management. This means the focus is not just on built-up areas where flooding is a concern, but on the whole river catchment and its entire journey from the source to the Forth. WWF and Clackmannanshire Council, working together with local farmers and land owners, are developing techniques to restore the river to its natural balance.

Below: the old mill in Tillicoultry
Above: canoeing on the Devon
Right below: River Devon floods, 2005
Right above: Kingfisher

slowing the flow

The River Devon Project: a partnership with nature

Throughout the UK, flooding is predicted to become more severe due to climate change. In the past, flood management has focused on the problem area, for example, by constructing ever-higher barriers to contain the water. Many such methods are extremely expensive and are now considered to be ineffective, unsustainable and damaging to the wider environment, often merely moving the water elsewhere. With more rain and less predictable weather forecast, urgent measures are needed to slow the flow of water from the land into the river.

The River Devon Project is using new techniques which address the causes of flooding, not just the symptoms. These techniques include the restoration of wetlands, which act as a sponge to hold water, planting native trees along the riverside to create a ‘leaky barrier’ to slow the flow of water back into the river from the flood plain, and erosion control where livestock have damaged bankings. It’s



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a cost-effective, common sense approach, based on understanding how the river behaves naturally and working with it, using natural methods and materials.

The Project is a long-term commitment to the River Devon, though some measures will be effective immediately. A healthier river, functioning naturally, will benefit local communities and businesses by reducing the risk of flooding, and improve the water quality and habitat for the river’s wildlife, including salmon and trout, otters and kingfishers.



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Remnants of native woodland in hillside gulleys will be fenced off from grazing sheep to allow natural regeneration.



Drainage channels and burns through forestry plantations will be managed to slow the flow of water into the river.

Ochils



Livestock will be fenced away from the river with willow walls created to prevent bank erosion. Drinking water will be provided for the animals in fields.



Ochils



Wetlands will be restored to function as natural sponges to absorb and hold excess water. This also creates ideal wildlife habitat.



Menstrie

Alva

Tillicoultry

Castle Campbell

Rumbling Bridge

Crook of Devon

Dollar

River Devon



Frequently measuring the flow of the river with a range of instruments will ensure that each technique used in the River Devon Project is evaluated.



Slowing the flow of the water will allow the river to set naturally again ensuring that local people can enjoy their river safe from the threat of flooding.



Planting native species such as willow and alder along the bank will hold the water on the flood plain for longer slowing the flow of water back into the river.

River Forth

Key

Problem

Solution

