

Sustainable Wetland Restoration in the New Forest (LIFE 3)

The New Forest supports some of the rarest and most important wetlands in Europe. Over the past 200 years these beautiful wetlands and the wildlife they support have declined and deteriorated mainly as a result of human activity. Mires have been drained in order to plant trees and to improve grazing for stock; watercourses have been straightened and deepened to speed up the waterflow and to reduce flooding; native wet woodland has been replaced with introduced "exotics" such as rhododendron and Norway Spruce.



The Project

The New Forest is part of a network called Natura 2000 that was created by the European Union (EU) to conserve seriously threatened habitats, plants and animals in Europe.

The LIFE3 Project is a 4-year partnership project, that was implemented in 2002 and which receives 40% of its funding from an EU fund called LIFE that supports the Natura 2000 network. The Project aims to restore 600 hectares of the wetland habitat across the New Forest, targeting 3 out of the 6 main water basins: Avon Water, Hampshire Avon and the Lymington River.

One of the key objectives of the Project is to restore 10km of damaged watercourse to a more natural condition. Streams are being reconnected with their floodplains, which will stimulate the regeneration of adjacent riverine woodland and bog woodland - two European priority habitats. Once complete, the Project's actions will also help rivers and streams of the New Forest to achieve "good ecological status", under the EU's Water Framework Directive.



Degraded channel on the Blackwater



Restored section on the Highland Water

Restoration works

Restoration works began with a demonstration phase along the Black Water in 2003. The Environment Agency continued its river restoration works, along stretches of the Highland Water at the top of the Lymington River, restoring a further 3.7 km of river in 2004. Further reaches of the Blackwater and Highland Water will be restored in 2005.

Restoration includes the reinstatement of many original meanders, which used to exist before the tributaries were artificially straightened, and the introduction of in-stream woody debris structures which can hold back water and create habitats for invertebrates and fish. River bed levels are also being raised by up to 1m by in-filling using locally sourced hoggins, held in place by clay plugs.



Natural overspill onto the floodplain after heavy rainfall on the Blackwater

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Works Update - Monitoring

Ecological

Macroinvertebrate monitoring has shown significant differences between invertebrate communities of degraded, channelised reaches, and those found in reference, sinuous reaches of the same river and locality. These differences have highlighted the importance of various elements of the physical habitat, and have the potential to be useful indicators of riparian habitat condition.



Fish surveys have also been carried out in order to allow comparison between the channelised and natural reaches. These will provide a measure of how this type of habitat restoration affects both the spatial distribution and abundance of species of key importance, such as Lamprey and Bullhead.



Physical

Topographical, hydrological and geomorphological monitoring is on-going. To date, post-restoration monitoring has confirmed the intended increase in overbank flooding, and associated erosion and deposition over the floodplain.

Debris dams have also developed, creating diverse physical habitat both within the channel and on the floodplain. Rates of floodplain and channel adjustment have been rapid and have created management challenges at the point of transition between the restored and impacted reaches.

