

# LITTLESTOCK BROOK NATURAL FLOOD MANAGEMENT PROJECT

The Natural Flood Management project in the Littlestock Brook catchment started in 2016 to manage local flood risk, improve water quality and create new habitats. This project is trialing catchment solutions which slow and store surface water flows to reduce flood levels in the village. It has been delivered by Wild Oxfordshire and the Environment Agency in conjunction with the Evenlode Catchment Partnership.

The work in the upper catchment around Fifield is improving the water quality and biodiversity by reducing the sediment and nutrients from entering the water courses.

The Natural Flood Management interventions are spread over 17 fields in the Bruern Estate, 4 in Fifield and 1 Milton Parish Council Field. We created 14.4 hectares of woodland, 30,000 m<sup>3</sup> of flood storage, 27 woody dams, 5 on-line ponds and reconnected over 150 m's of brook to it's original natural valley location.

This project shows that farmers and landowners play a vital role in the management of flooding in our landscapes, in addition to growing our food and protecting the wildlife and wild spaces. Without their willingness to trial innovative techniques this project would not have been possible.



**KEY**

Woodland	Flood Storage Area (FSA)	Bridle Way
New Planting	On Line Ponds	Footpath
Pasture	River	Permissive Path
Arable		



## RIPARIAN TREE PLANTING IN PARISH FIELD, MILTON UNDER WYCHWOOD

Trees also play an important role in flood water management. The riverside tree planting will help water to infiltrate into the soil rather than running off the land and straight into the brook. Trees take up water from the soil and water also evaporates from the canopy. The planting and path construction, funded by Thames Water, has created an attractive edge to the field for recreation and will attract wildlife.

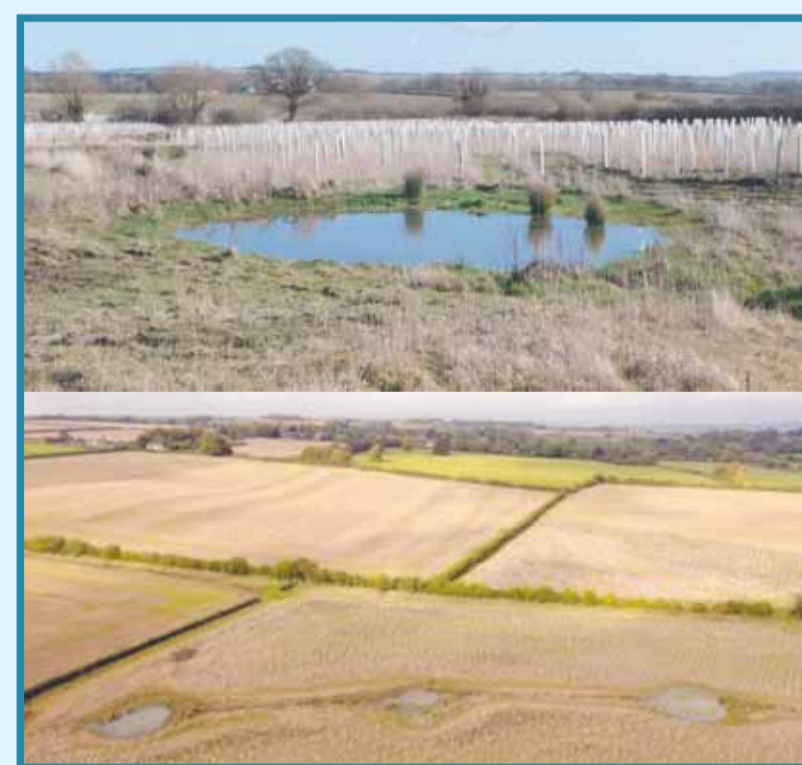
Milton Parish Council and the local community carried out the tree planting and willow spiling works. The willow spiling will help to stabilise the banks.



## RIPARIAN TREE PLANTING WITHIN THE FLOOD STORAGE AREAS IN FIELDS

Trees also play an important role within the flood plain and we have planted strips of native woodland along the field edges where we have also created water storage areas.

The protective shelters around the trees give the saplings a head start and will be removed after a few years.



## ONLINE PONDS

Where possible the minor tributaries of the brook have been reconnected to their natural course across fields. Historically these little brooks have been diverted along ditches to create bigger fields.

The ponds slow the flow and capture sediment and nutrients which can then be spread back onto the fields, helping to maintain cleaner water and keep the soils on the land.

These ponds have been colonised very quickly by water loving plants and insects and attract the larger mammals and birds. Adding to the diversity and interest of the farm.



## WOODY DAMS

A series of woody dams have been installed by the parish council along the brook to reduce the amount of cobbles moving down the channel and accumulating near Church Road bridge. These have been very successful in changing the bed of the brook.

The dams allow normal flow under the timber, but slow the flow when high rainfall swells the brook. With time gravels and woody material accumulate both upstream and downstream of the dam, when water scours a pool under the dam and deposits natural gravel banks. These are natural processes which encourage a greater biodiversity in the brook.



## FLOOD STORAGE AREAS (FSA)

A series of field corner flood storage areas and woody dams have been installed.

Woody dams divert high flows into the fields to be safely stored behind low earth banks constructed in the field corners. The flood storage areas also intercept overland flows and then slowly release back into the brook.

These field corner areas now support wildflower grasses and wetland habitats.



Flooding at The Heath 2007



**EVENLODE  
CATCHMENT  
PARTNERSHIP**



**Environment  
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Oxfordshire**

