River Thame Catchment Conservation Project

The River Thame Catchment Conservation Project is led and coordinated jointly by Pond Conservation and by the River Thame Conservation Trust, working in partnership with the Environment Agency. The project will use CRF funds to improve the chemical and biological quality of four tributaries of the River Thame in Oxfordshire. These are Milton Ditch, Denton Brook, Baldon Brook and Gainsbridge Brook.

The River Thame and its tributaries are typical of many lowland rivers in facing a combination of point source pollution, particularly from agriculture and road run off. Although a naturally wet landscape, the River Thame catchment has also been thoroughly drained and now largely lacks good quality in-stream and wetland floodplain habitat. Currently, the majority of the River Thame and its tributaries (including the four pilot streams) are failing to meet Good Status under the Water Framework Directive (WFD).

The River Thame Catchment Conservation Project is using CRF funds to address these issues. Working closely with landowners, we aim to:

- Create small wetlands on ditches and streams to hold back nutrient and sediment pollution *before* it enters the River Thame;
- Create new wetlands - on low-lying land already prone to flooding - to restore a more varied habitat on the River Thame floodplain.

Over the next two years, we are also planning a programme of workshops, training courses and farm visits to raise awareness of water quality issues, and work with stakeholders to identify practical ways to address them.

Key facts	
River Basin District	Thames
Catchments	Thame
Outcomes	**Improved river water quality –** reduce diffuse phosphorus sources by 50%, sediment sources by 50% and nitrogen sources by 30% in four pilot streams. Improvements to WFD chemical status in two waterbodies (GB106039023820 & GB106039030240). **Improved biodiversity –** increase in-stream physical habitat in four pilot streams. Improvements to WFD ecological status in two waterbodies GB106039023820 & GB106039030240. **Improved floodplain function –** create wetland scrape complexes for wetland birds at six locations on the Thame floodplain. **Improved awareness –** engage landowners and farmers on water quality and biodiversity issues.
Start Date	October 2012
End Date	March 2015
Budget	£180,746
Project Partners	Main partners: Pond Conservation: The Water Habitats Trust, River Thame Conservation Trust & Environment Agency. Also collaborations with Thames Water, RSPB, Natural England, Centre for Ecology & Hydrology, Local Angling Clubs, South Oxfordshire District Council, Oxfordshire Nature Conservation Forum, The Hurst Meadow Conservation Trust, Sylva Foundation, Queen Mary University

Description of Works

To tackle the issues in the four pilot stream catchments, the River Thame Catchment Conservation Project will manage the delivery of the following physical works:

Small wetland systems & bunded ditches – We will be installing a network of small settlement ponds across the four pilot catchments, to intercept polluted water flowing from land drains and agricultural ditches. These small wetland systems allow the

water that enters them to settle, and have been shown to reduce phosphorus levels by as much as 50%, sediment by 50% and nitrogen by 30%. We will also install an extensive network of low bunds in the existing ditch systems across the agricultural landscape, to slow and hold back sediments and sediment-associated nutrients, especially phosphorus.

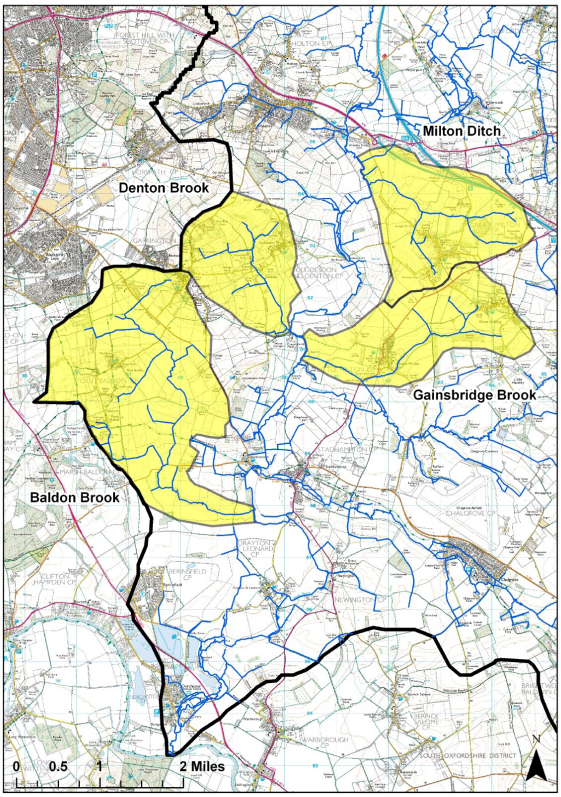
Intercepting field drains – Field drains often provide a direct pathway from field to waterbody, bypassing buffer strips. To reduce this risk, we will install small wetland drain interceptor basins at all practically feasible locations.

Increase in-stream physical habitat – We will aim to install woody debris in at least 5km of headwater streams in the four pilot areas, to improve in-stream physical habitat structure for the benefit of wildlife. This is a proven and inexpensive river restoration technique. We will also scope out areas suitable for more comprehensive river channel restoration works (e.g. re-meandering).

Create wetland complexes on the Thame floodplain – We will create shallow floodplain scrapes at six locations in the River Thame floodplain. This will improve heterogeneity on the floodplain, and provide early succession habitat for wetland plants and invertebrates and feeding areas for wetland birds.

Engage landowners and farmers – Landowner engagement and uptake across the whole pilot area is a key pre-requisite for the success of the project. We will be delivering a programme of training courses, site visits and workshops aimed at landowners and farmers, to raise awareness of the project.

The Four Pilot Catchment Areas



Strategic plan for the River Thame – We will complete the preparation of a strategic overview plan for the catchment, jointly developed by all catchment partners. The overview plan will apply the techniques and lessons learnt in the pilot area, to outline a rolling programme of practical works throughout the Thame catchment.

What will success look like?

The River Thame Catchment Conservation Project aims to install low key, cheap, on-farm solutions to address water quality issues. The success of the physical measures implemented across the four pilot catchments will be assessed through a detailed baseline survey and re-survey of the area for nutrients (phosphorus, nitrogen and conductivity) and biology (wetland plants and invertebrates). Possible changes in WFD status will be assessed from routine monitoring carried out by the local Environment Agency team. Ultimately, we would like to see a healthy River Thame full of wildlife – fish, birds and dragonflies – once again thriving for the benefit of all those who live and work in the area.

About the team
Project Manager: Dr Pascale Nicolet
Project Assistant: Nathalie Marten
Project finance: Mark Hathaway
Director: Dr Jeremy Biggs
Project Partners
Environment Agency: Dr Sian Davies, Tom Sherwood
River Thame Conservation Trust: Sally Rowlands, Bob Campbell, George Farrant, Charles Dickerson & Stephen Dawson.

Department for Environment Food & Rural Affairs

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