

CASE STUDY 3

OLD HATTONS FARM

FARMING FLOODPLAINS for the FUTURE

Catchment	Penk (field drainage)
Holding Type	Arable
Existing Land Use	Ponds
Project Area	0.07ha [Total holding : 246ha]
Techniques	Pond Alterations



Western pond before works, after de-silting, and with dam installed and re-filled

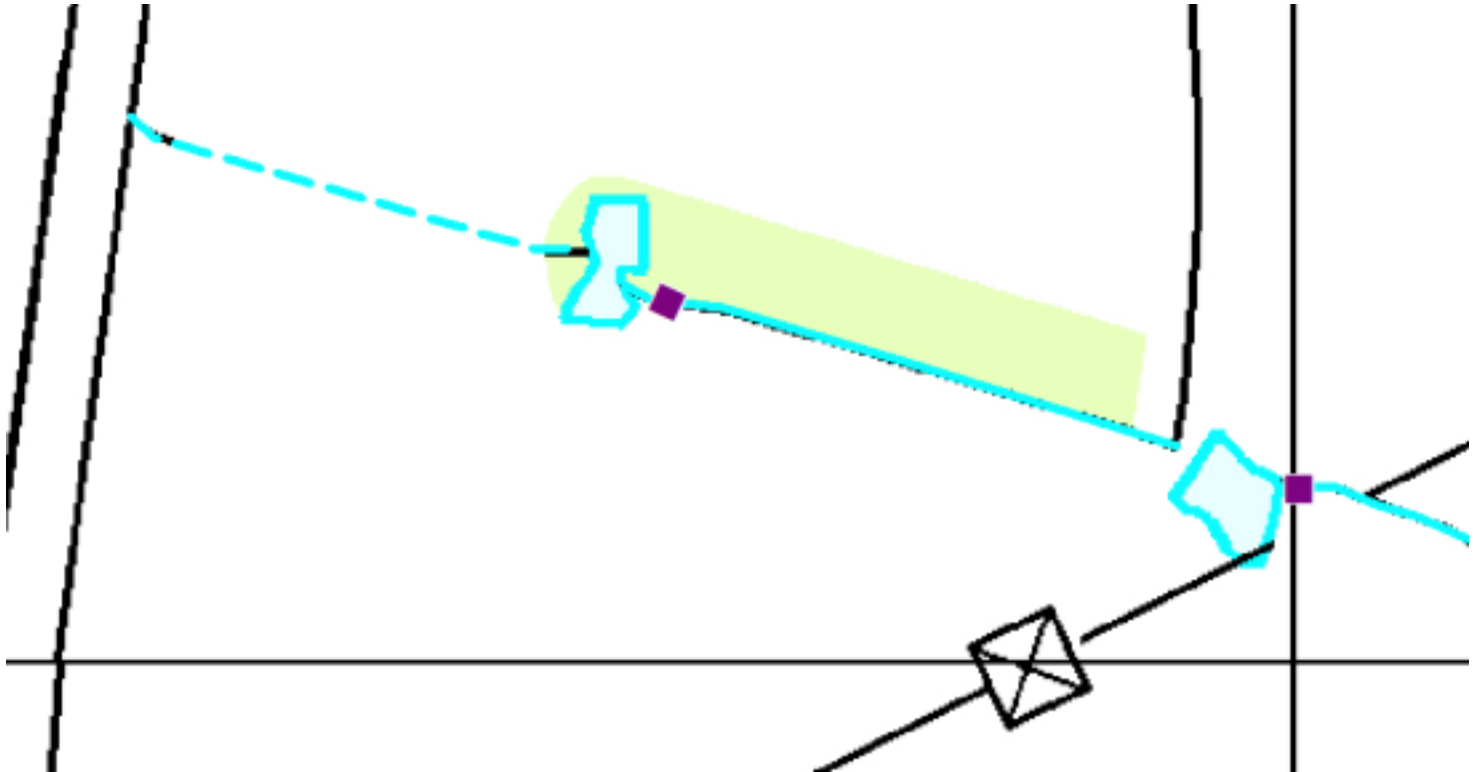
Background

Old Hattons Farm is a large Severn Trent Water owned arable farm growing cereals and oilseed rape in the catchment of the River Penk.

The farms manager for Severn Trent Water had been intending to de-silt the ponds in question. Farming Floodplains for the Future provided the impetus for action, while also trialling a smaller scale approach to flood risk management.

The Project

Small scale flood storage created by altering the outflow arrangements for 2 existing ponds.



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- The ponds are both on-line, linked by a ditch fed by land drains and a small amount of road run-off. With a substantial freeboard, both offered the potential to store additional water without requiring any earthworks.
- The outflow from each pond is now controlled using a dam made from re-cycled plastic sheet piling. A small aperture has been drilled through the piling at the existing water level, sufficient to allow 'normal' flows to pass through, but restricting higher flows, resulting in the backing-up and storage of water until the dam is overtopped.
- While not essential in terms of flood management, the project included the restoration of both ponds, removing trees and decades of accumulated silt and leaf litter (the latter spread and ploughed in to nearby wild bird seed mix plots prior to their re-establishment).



Removing silt from eastern pond

Consultations.....

- Biological Records
- Natural England (re CSS agreement and funding)

.....& Consents

- None required

A short distance downstream of the second pond, the ditch is piped across the rest of the farm, apart from a short section where it comes to the surface for approximately 50 metres. This location was identified as an opportunity to create a new pond with flood storage capacity. However in the end this was not actioned, the landowners concerned primarily about the effective disposal of the spoil that would be generated by the scheme.



Future Management

- On-going monitoring of the dams is required to assess whether the apertures are large enough (i.e. providing the right balance between conveyance and storage). Thereafter maintenance will be restricted to ensuring the aperture is not blocked.
- The ponds are likely to require de-silting again in the long term.

Functioning dam
(eastern pond)

Benefits

HYDROLOGICAL	Creation of small-scale flood storage – approximate capacity 240m ³ .
HABITAT	Restoration of two ponds.
FARM BUSINESS	No direct impact on the farm business (other than provision of labour for the pond restoration).

Costings

Materials for dams	£ 261	Natural England Grant (via CSS)	£ 1290
Pond (& ditch) restoration	£ 4000	Landowner Contribution	£ 2710 + labour
TOTAL	£ 4261	Farming Floodplains for the Future	£ 261

[Prices excluding VAT]