

Hampshire and Isle of Wight Wildlife Trust : Wroxall Stream Project

Catchment Partnership Action Fund

Fen restoration and tree management

Introduction

Following a study and walk over by the Hampshire and Isle of Wight Wildlife Trust a number of issues were brought forward for discussion regarding the Wroxall Stream.

Two of these issues were the shading of the Wroxall by extensive areas of riparian tree cover and the presence of intensive arable agriculture on highly friable soils adjacent to the watercourse or its floodplain. The latter causes increased sedimentation and phosphate deposition at times of high rainfall.

Figure 1 : Maize field adjacent to Wroxall Stream floodplain



Project Work

It was agreed that work would be undertaken to :

- Reduce scrub in the floodplain of the Wroxall stream to increase the area available for the growth of common reed (*Phragmites australis*). This plant has a very high growth rate and it is widely used in biobeds to assimilate dissolved agrichemicals such as nitrate and phosphate as well as trap sediment.
- Reduce riparian tree cover which shades emergent vegetation which can act to reduce bank erosion and trap sediment in-channel as well as act as a buffer between the watercourse and the arable land.

Project Results

Two sites were selected on the Wroxall Stream and its tributaries where :

- reed beds occur in the floodplain so that a natural biobed is already in place but is being invaded by scrub – mainly grey willow (*Salix cinerea*)
- riparian tree growth is causing deep shade and preventing the establishment of buffer vegetation and increasing the likelihood of bank-side erosion

Figure 2 : reed bed with scrub removed



Figure 3 : Wroxall Stream prior to works



Figure 4 : Wroxall post works



Figure 5 : Wroxall with tree removed



Figure 6 : Wroxall stream – post works



Further Works

It has been proposed that work on the Wroxall is enhanced by the construction of a low bund along the watercourse at Bathingbourne. This bund will act to trap sediment which is a major source of phosphate from the maize fields surrounding it.

The presence of these bunds has worked on other parts of the farm but have been constructed by the piling of arisings from the stream following decades of clearance and deepening rather than through active pollution control and management.

It is proposed that this work is conducted when ground conditions are improved in the early spring 2016.

Figure 7 : Maize field with erosion and no buffer



Figure 8 : Maize field with streamside bund

