

Hampshire and Isle of Wight Wildlife Trust :Wroxall Stream Project

Catchment Partnership Action Fund

Silt trap for soil conservation

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.

One of these was the creation of soil traps by the construction of low bunds against the arable fields on the edge of the Wroxall stream and its tributaries. A local farmer, Mr Tom Smith agreed that the Island Rivers partnership could construct such a bund on a field on Bathingbourne Farm.

The field was drilled for maize and then seeded for grass over winter to be drilled again in the late spring once a crop of grass had been taken. The cultivation of maize and subsequent grazing of the undersown grass by sheep had reduced the ground cover and flooding of the stream caused by a wet winter had left some exposed and at risk from erosion. It was this field that was chosen for the bunding operations

Figure 1 : Wroxall tributary looking north – before & after works



Figure 2 : Wroxall tributary looking south – before & works



Discussion

The bund is constructed with a low profile and runs along the edge of the watercourse. It is constructed from material from the bankside allowing a re-profiling of the watercourse itself creating a shallow edge. This shallow edge should improve habitat for emergent vegetation. An alder tree has been retained in the middle of the bund. This will act as a low point to allow water to flow into the stream from the field but the tree roots will trap the silt. This will prevent the field flooding and the bund overtopping in heavy rain.

The bund will trap soil and the associated agri-chemical bonded to it – particularly phosphorous – preventing these chemicals from coming back into solution when they are exposed in the water. This is a particular issue which has been identified as an issue in the Wroxall stream.