



The effectiveness of grip blocking in the Whitendale catchment, Forest of Bowland, UK

A. Armstrong (1), F. Worrall (2) and J. Holden (1)

(1) School of Geography, University of Leeds, Leeds, (2) Dept of Earth Science, Durham University, Durham (a.armstrong@leeds.ac.uk / Fax: +44 (0)113 34 33308 / Phone: +44 (0) 113 34 33324)

Historically gripping (artificial drainage) was a wide spread practice in the UK uplands. In more recent years there has been a move to block the grips. This study examines the effect of blocking a series of grips in the Whitendale catchment, Forest of Bowland.

The grips were blocked by heather bales, turves, plastic piles and various combinations of these three methods. Water colour, conductivity, pH, water table depth and suspended sediment were monitored before, during and after grip-blocking at approximately weekly intervals in a series of grips and streams within the catchment. In addition ten grips, six of which were blocked and four of which were controls, were monitored at 8 hourly intervals using auto-samplers.

The main findings were: blocking decreased the runoff from the grips, water colour increased in the blocked grips but there was no demonstrable effect at the catchment scale, the water table depth significantly decreased, there was no evidence of redistribution of water through the catchment and no blocking technique was found to be superior.