

Project Report

Report on completion of Landcare Project
for which in-kind work conducted:
National Landcare Program – NLP-CW-E0607/2



Due to extenuating circumstances (Drought and extended absence due to off-farm employment) the completion of this project has been delayed. I am grateful for the patience of the Landcare Co-ordinator.

The site is now complete including some additional elements that were added as the need arose. This includes the use of small bales of hay used in the deeper erosion areas as well as the use of coconut matting and second-hand fence netting to re-establish bare earth areas.

Introduction

This property has very light shale soils based on subsoil that is highly erodible (prehistoric). The site in question was originally treated by Soil Conservation. They constructed “absorption” banks on a contour of the hillside. These were designed to “catch the runoff, hold it and allow it to absorb into the sub soil. The problem with that design was the fact that these soils do not absorb. They have high clay content and are resistant to wetting. The result was that the water cut through the banks and the damage was extensive.

My plan was to aid the process of “self repair” by giving the area a structure on which to rebuild. This is based on the natural events of sediment traps made by fallen trees that catch biological material & soil sediment to rebuild the basic slope structure.



Natural sediment trap on site

Project Initiation

The preparations for the project included cutting the 1.8m wooden posts and steel posts to size. A variety of lengths were cut to suite the varied terrain. Steel posts for the rock areas and pointed wooden posts for the remainder.



The posts were hammered into the slope, a slot cut into the top of the post (using a chainsaw) to position a top wire to which the foot netting was then fastened.



The addition of native pasture hay was not added until all the netting structures were completed. It was noted that the initial installation of the sediment traps (foot netting) that were in place for 12 months prior to the addition of pasture hay, showed very little capacity of holding/retaining the silt carried by water runoff.

Bales of hay were added to the deeper parts of the erosion areas, and then pasture hay used to fill the netted areas to better catch the finer soil particles.



Matting

Our local Landcare group had acquired some coconut fibre matting for use experimentally on varied erosion areas. I also decided to use old fence netting for the same purpose so as to compare the results of the different materials.

Two separate sites were chosen for both material types.

The area has been photographed prior to the treatment (see photo right).

Native pasture hay was spread on the area first and then the matting/netting pegged down with metal staples. The area was broadcast with a grass seed mixture after the installation.



One of the completed matting structures

Rehabilitation of the lower eroded area was done using higher used netting with wool (contaminated waste) & slashed grass as a filler.



A nearby fallen tree was used to aid the retainment process as was old fencing material.

To finish the project, a grass seed mix* (financed by the local Landcare group) was broadcast over the whole area.

**Phalaris, Landmaster Phalaris, Greenway Cocksfoot, Demeter Fescue & Leura sub clover.*



Costs and in-kind Contribution

Additional materials were also brought in at the cost of the landholder. These include second-hand plain fencing wire and netting, fencing fasteners and bales of hay. It would seem the In-kind contribution was well and truly underestimated.

MATERIALS Subsidised			
Item	Qty.	Item price (inkl. GST)	Total
Star posts	100	\$4.51	\$451.00
Foot netting	16	\$99.00	\$1,584.00
Wooden posts	600	\$1.05	\$631.29
Round bales of pasture hay	2	\$88.00	\$176.00
		Total	\$2,842.29

IN-KIND Contribution			
Materials			
2nd-hand netting	30m		
2nd-hand plain wire	1500m		
Fencing clips/fasteners	30	\$1.20	\$36.00
Bales of hay	44	\$5.50	\$242.00
Labour			
Labour (hours)	140	\$30.00	\$4,200.00
10 years maintenance	Future costs	50	\$30.00
		Total	\$5,978.00

Summing Up

A follow-up report will be necessary to show the effectiveness of the work done. While it is very difficult to see such a project as an “investment” in the short term, we may have to see the longer view to appreciate the full investment.

If we see ourselves as “custodians” of the land then we need to look at the larger picture. The past land “management” practices with the initial tree clearing and overgrazing by sheep, followed by attempted repairs with unsuccessful earthworks has had a detrimental effect on this area. The future management practices will also affect future generations and that is the responsibility of the present generation to set an example by setting things right.

Custodian/Land Manager

Rowan Wright
20th February 2011