

Community Participation

NSWLP-011-R028

Regenerating the landscape

Murrumbidgee Landcare Inc



Restoring a functional water cycle to eroded landscapes in the Kyeamba Valley

The issue

The transformation of creek and gully systems from intact to incised is a process which can be seen on countless farms across the Kyeamba Valley. Prior to the introduction of grazing to this landscape, waterways would have been well vegetated, both within the waterway and along the banks and adjoining areas.

However the introduction of uncontrolled livestock grazing, especially along waterways and fragile areas, has led to a reduction in the height and amount of vegetation across the landscape. In many parts of the Valley this has exposed the sodic and fragile underlying soils, which has then resulted in extensive creekbank and gully erosion. The incised valley beds which can be seen on many farms across the region are the result, with no functional connection between the creeks and surrounding floodplains. Rainfall events here are typified by the rapid and short-lived flow of water through the system, with this effective 'loss' of water from the system presenting a significant issue for farming and ecosystem sustainability.

The solution

To rehydrate our landscapes, we need to return these systems to a more functional flow pattern, where peak flows are reduced and low flows are extended, giving the land time to soak up as much water as possible during rain events. In the words of The Mulloon Institute, our landscape rehydration goal is to "take actions that encourage the retention and cycling of water in the landscape for the benefit of farm productivity and biodiversity".

The Mulloon Institute have been demonstrating the role, process and success of landscape rehydration for many years, with their demonstration and research farm at Bungendore now recognised internationally. The Kyeamba Valley Landcare Group were keen to learn from this experience, so with the help of a Community Grant from Riverina Water we were able to bring The Mulloon Institute to our Valley for a two-day practical workshop on landscape rehydration.

The impact

Our workshop attracted 39 participants who were keen to learn more about the process and its application in our local region. Through a series of theory and practical sessions, we learned about the water cycle and how grazing and farm management can affect the natural processes associated with this. We learnt how to assess a landscape to determine the natural and artificial features which could influence water flow. We learnt about the role and design of structures such as leaky weirs, and contour lines. We learnt how to determine the total catchment yield, and the stream order of systems we are looking at. We undertook ephemeral drainage-line assessments, and completed a long section survey to design a restoration project. We left the workshop feeling better equipped to address the gully erosion and associated problems which exist across our landscape.



Key facts

- 39 participants
- 2 days of learning
- Countless questions answered

Project Partners



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