



FOREST RED GUM (*Eucalyptus tereticornis*)

The challenges of planting in this section of the Wilsons River have included flood and frost. In order to overcome these obstacles frost hardy species were selected along with those that could survive periods of inundation by flood. These plantings provide a framework for less hardy species to be introduced in the future.

Planting was timed to occur in spring and early summer in order to give the seedlings ample time to establish and grow prior to a frost event. During hot and dry years watering was required in the establishment phase.

In areas that are not prone to frost, planting in autumn may be preferable. Soil temperature at this time is still warm and growing conditions are favourable as there is often an increase in rainfall and not as many days in excess of 30 degrees.

WILDLIFE, BIODIVERSITY AND PEOPLE

The establishment of riparian vegetation along both properties has improved ecosystem health and created a haven for wildlife including the Little Black Cormorant, Azure Kingfisher, Yellow-throated Scrubwren and native freshwater fish.

Mick's work with his students is a wonderful example of how land management in a drinking water catchment can be successful, without compromising the health of our waterways, our local drinking water supply, the land, wildlife and people.

These articles were prepared by Shannon Greenfields for Rous County Council in liaison with participating landholders.

© Rous County Council 2014.
Photography: Trevor Worden.
This article can be downloaded from the Rous County Council website at: www.rous.nsw.gov.au



7. FENCE WITH RIPARIAN VEGETATION ACTS AS A BUFFER BETWEEN THE FARM AND THE WILSONS RIVER
8. ST. JOHN'S COLLEGE



MEET MICK

LANDMANAGER, TEACHER AND CARETAKER OF THE WILSONS RIVER



Mick teaches Agriculture at St. John's College Woodlawn, a co-educational Catholic Secondary College.

The campus sits on a picturesque 28 hectares of rolling hills adjoining the meandering Wilsons River just outside Lismore in Northern NSW.

In addition to his role as teacher, Mick manages about 12 hectares of College land. He also owns the adjoining property where he runs livestock.

DRINKING WATER CATCHMENT

The two properties managed by Mick lie in the heart of the Wilsons River drinking water catchment. The Wilsons River flows right past the properties. Water from the river is pumped from the nearby pumping station to the Nightcap Water Treatment Plant for filtration and disinfection before it is distributed across the region as drinking water. Land use in the Wilsons River drinking water catchment is predominantly agriculture, which potentially influences water quality by introducing pathogens, nutrients, sediments and chemicals into waterways.



1



2



3



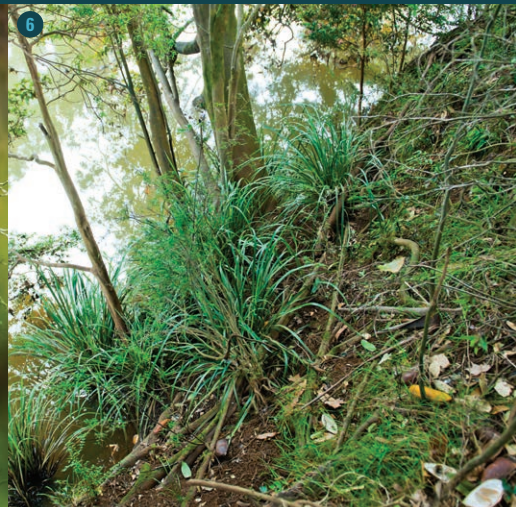
1. AGRICULTURE LESSONS 2. OFF-STREAM WATERING POINT FOR LIVESTOCK 3. ALPACA 4. RIPARIAN PLANTINGS 5. LITTLE BLACK CORMORANTS 6. VEGETATION SUPPORTS STREAM BANK STABILITY



4



5



6

The quality of the water in the creeks and rivers determines how much treatment is needed before the water is safe to drink.

Mick has always had an interest in the environment and is a long-time Landcare member who teaches his students that we don't own the land, but instead we buy or inherit the right to look after it.

He says we have a responsibility to protect the environment and to leave it in a better state than when we found it. And he practices what he teaches.

APPROACH

He uses the 'paddock to plate' approach to teach his students about food – where it comes from and the practicalities of growing your own. He uses livestock (most have names) to engage his students and provide a fun and interesting hands-on experience. What young person doesn't love animals?

Mick builds the skills of his students during their time at Woodlawn College. His senior students are taught a practical approach to meeting the challenges and responsibilities of managing a successful agricultural enterprise, while also looking after the environment.

Much of the fencing and riparian restoration work on the campus property was completed by senior students who choose Primary Industries as an elective subject.

Mick teaches Best Land Management Practices – and on both properties that's exactly what he does.

CONTROLLING STOCK ACCESS TO WATERWAYS

Mick runs 75 head of cattle across both properties and knows the importance of keeping his stock out of the waterway.

Uncontrolled livestock access to waterways in a drinking water catchment affects river health and drinking water quality.

Livestock can introduce pathogens from faeces or carcasses that increase the risk of disease. Nutrients from faeces and urine also increase the risk of toxic algal blooms. Sediment from the erosion and disturbance of stream banks harms aquatic life, clogs waterways and burdens the drinking water treatment process.

Unfortunately domestic stock, and particularly cattle, favour riparian frontages. If they're not managed carefully cattle will spend much of their time along stream banks and in the water.

With funding provided through Rous Water's River Reach Program Mick has erected fencing to successfully exclude stock from 3kms of marginal land and riverbank.

Mick believes that if land is no good for agriculture, we should fence it off and create a habitat for wildlife!

And Mick says the benefits go beyond the environment.

His livestock are healthier now that they drink clean water from watering troughs. They no longer swim across the river and go missing, drown in a flood or get bogged in the riverbank. And, it helps him with pasture management.

PROTECT VEGETATION ALONG WATERWAYS

The establishment of vegetation along waterways can reduce run-off, act as a filter to trap sediments, nutrients and other contaminants, increase stream bank stability and improve water quality.

With the support of the Catchment Management Authority, Rous Water, Landcare and Greening Australia, Mick and his students have established vegetation along the riverbank and protected remnant patches of Big Scrub Rainforest on the properties.

In the past 10 years, over 2000 trees have been planted along the riparian zone of both properties and that figure is growing.

