

Managing riparian land: benefits to beef cattle farmers

Over the past 20 years, catchment management authorities (CMAs) and government have worked with landholders to manage riparian land. Typical management activities have included fencing, revegetation, provision of off-stream stock watering infrastructure and weed and pest animal management.

Riparian land with native vegetation in good condition is important for waterway health. It provides habitat for plants and animals, improves water quality, stabilises stream banks, supplies food for fish and other in-stream organisms and provides a corridor for the movement of native plants and animals.

This fact sheet presents the direct benefits to beef cattle farmers from managing riparian land.

What is riparian land?

Land that adjoins rivers, creeks, estuaries, lakes and wetlands is known as riparian land (often called 'frontage'). Riparian land is often the only remaining area of remnant vegetation in the landscape.

What are the benefits of riparian works to beef cattle farmers?

On a personal and property scale, managing riparian land has a number of direct benefits to beef cattle farmers that are supported by sound evidence:

- production benefits e.g. reduced time mustering cattle, increased weight gain, reduced risks to animal health
- improved property prices e.g. adding market value from native vegetation
- landholder wellbeing e.g. personal pride and a 'feel good factor'.

Production benefits

Reduced time mustering cattle

A number of independent Australian studies have shown that fencing riparian land can increase the ease of mustering cattle, which in turn can reduce farm costs.

A Victorian study of Crown frontage licence holders revealed that 50% of survey respondents considered fencing their waterway to be an important to very important productivity benefit in managing livestock¹.



Fenced and revegetated tributary of Darlots Creek, SW Victoria. Photo: Glenelg Hopkins CMA

Increased production

When a waterway is fenced off, direct stock access to water is often lost. However, a number of off-stream stock watering options are typically employed that provide a safer, cleaner and more reliable source of drinking water.

For example, troughs provide easy stock access to water that is less likely to contain pathogens than water consumed directly from waterways. Greater access to higher quality water means that livestock will drink more of it and the more water cattle consume, the more they eat and hence the more weight they put on.

For example, a North American study showed that elevated total dissolved solids in water adversely affected the palatability of water hence consumption and indirectly feed consumption and performance².

Reduced risks to animal health

Off-stream stock watering may also reduce the incidence of disease in cattle. Interviews with cattle producers in the USA noted that "Many producers commented on general herd health improvements that resulted from implementing their stream exclusion systems. Most producers who provided an alternative source of water for their livestock saw a decrease in incidence of disease. Common diseases that declined after stream exclusion included foot rot, pink eye, scours and mastitis"³.

Managing riparian land: benefits to beef cattle farmers



Uncontrolled cattle access to the Broken River. Photo: Goulburn Broken CMA

Shelter belts

The evidence of the benefits of shelter belts to stock wellbeing and production is well documented.

A report prepared for the Basalt to Bay Landcare Network in south west Victoria provides summaries of numerous studies demonstrating many different ways in which shelter belts provide landholders with economic benefit⁴. For example, protected areas of farms can have a 20 to 30% higher yield than unprotected areas.

Improved property prices

Evidence from several Australian studies based on farm sales suggests that well managed riparian frontages can improve the market value of a rural property.

In one report, evidence from real estate agents suggests that well managed riparian frontages can add up to 10% of the market value of a rural property⁵.

In Victoria, a number of recent studies have found that:

- there is an optimal proportion of native vegetation influencing positive property values - about 40%
- private benefits of native vegetation are greater per unit area on small and medium-sized farms (both commercial and lifestyle) and lesser on large production-oriented farms (leading to property value increases from 5 to 16% with the optimum amount of native vegetation)
- location characteristics are important determinants of property values e.g. proximity to lakes, rivers, and parks for recreational opportunities^{6,7,8,9}.

Improved aesthetics and landholder wellbeing

Many landholders are motivated to carry out riparian works for aesthetic and environmental reasons, including the peace and beauty of having native vegetation and wildlife on the farm with some recreational benefits, such as fishing, boating and relaxing.

A Victorian riparian works evaluation report included survey results which showed that improving the aesthetic value of the riparian land was one of the top three responses given by landholders in response to why they undertook riparian works¹⁰. Other top reasons were to improve the health of the waterway and to improve overall environmental outcomes across the property.

This finding is supported by a more recent Victorian survey of landholders with Crown water frontage licences which found that the most important benefits from managing riparian land were non-commercial e.g. creation of habitat for native birds, attractive and aesthetic frontages¹.



Wannon River, SW Victoria. Pre-riparian works (above) and fifteen years after riparian works (below). Photos: Glenelg Hopkins CMA

Managing riparian land: benefits to beef cattle farmers

These studies also showed that regardless of a landholder's initial motivation for managing riparian land, a key outcome is often a more aesthetically pleasing farm which is highly valued by the landholder.

Further evidence can be found from the USA, where a study of 268 farmers of the mid-western watershed of Michigan, revealed that landholders were more likely to manage riparian land based on their attachment to land and their desire to conserve land for future generations rather than a motivator of receiving economic compensation¹¹.

Want to manage your riparian land?

More information about riparian management programs in your region can be obtained from your CMA.

| | |
|---------------------|--------------|
| East Gippsland CMA | 5152 0600 |
| West Gippsland CMA | 1300 094 262 |
| Corangamite CMA | 5232 9100 |
| Glenelg Hopkins CMA | 5571 2526 |
| Wimmera CMA | 5382 1544 |
| Mallee CMA | 5051 4377 |
| North Central CMA | 5448 7124 |
| Goulburn Broken CMA | 5822 7700 |
| North East CMA | 1300 216 513 |
| Melbourne Water* | 131 722 |

* Melbourne Water is the waterway manager for the Port Phillip region

Further information

Fact sheet series

This is one in a series of fact sheets on the benefits for landholders in managing riparian land. Other fact sheets include a summary as well as fact sheets covering specific benefits to:

- dairy farmers
- sheep graziers
- croppers.

The fact sheet series has been developed from a longer report investigating the benefits to landholders of undertaking riparian work¹². The fact sheets and full report can be found in the [riparian land](#) section on the DELWP website.

Riparian land

More information about managing riparian land can be found on the DELWP website at: [Riparian land](#) and [Crown land leases, licences and permits](#).

References

1. Aither, 2014. DEPI Crown Frontages Landholder Survey, A report prepared for the Victorian Department of Environment and Primary Industries.'
2. Morgan, S.E., 2011. Water Quality for Cattle. *Vet. Clin. North Am. Food Anim. Pract.*, Ruminant Toxicology 27, 285–295. doi:10.1016/j.cvfa.2011.02.006
3. Zeckoski, R.W., Benham, B.L., Lunsford, C., 2007. Water quality and economic benefits of livestock exclusion from streams: experiences from Virginia, in: *Watershed Management to Meet Water Quality Standards and TMDLS (Total Maximum Daily Load) Proceedings of the 10-14 March 2007, San Antonio, Texas. American Society of Agricultural and Biological Engineers*, p. 592.
4. Austin, P., 2014. The economic benefits of native shelter belts. *Basalt to Bay Landcare Network*.
5. Price, P., Lovett, S., Lovett, J., 2005. *Wool Industry River Management Guide: High rainfall zones including tableland areas. Land & Water Australia*.
6. Polyakov, M., Pannell, D.J., Pandit, R., Tapsuwan, S., Park, G., 2014. Capitalized amenity value of native vegetation in a multifunctional rural landscape. *Am. J. Agric. Econ.* aau053.
7. Polyakov, M., Pannell, D.J., Pandit, R., Tapsuwan, S., Park, G., 2012. Valuing environmental assets on rural lifestyle properties, Working Paper 1210. The University of Western Australia.
8. Polyakov, M., Pannell, D.J., Pandit, R., Tapsuwan, S., Park, G., others, 2013. Valuing environmental assets on rural lifestyle properties. *Agric. Resour. Econ. Rev.* 42, 159–175.
9. Walpole, S.C., Lockwood, M., Miles, C.A., 1998. Influence of remnant native vegetation on property sale price. *Johnstone Centre, Charles Sturt University*.
10. Ede, F., 2011a. *Riparian Works Evaluation Project: Final Report. Department of Primary Industries, Victoria, Australia*.
11. Ryan, R.L., Erickson, D.L., De Young, R., 2003. Farmers' motivations for adopting conservation practices along riparian zones in a mid-western agricultural watershed. *J. Environ. Plan. Manag.* 46, 19–37.
12. Evidentiary Pty. Ltd., 2016. *What are the benefits to landholders of adopting riparian work? A summary of evidence and technical information*.

Managing riparian land: benefits to beef cattle farmers

The State of Victoria Department of Environment, Land, Water and Planning 2019



This work is licensed under a Creative Commons Attribution 4.0 International licence. You are free to re-use the work under that licence, on the condition that you credit the State of Victoria as author. The licence does not apply to any images, photographs or branding, including the Victorian Coat of Arms, the Victorian Government logo and the Department of Environment, Land, Water and Planning (DELWP) logo. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>
ISBN 978-1-76077-465-3 (pdf/online/MS word)

Disclaimer

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

Accessibility

If you would like to receive this publication in an alternative format, please telephone the DELWP Customer Service Centre on 136186, email customer.service@delwp.vic.gov.au, or via the National Relay Service on 133 677 www.relayservice.com.au. This document is also available on the internet at www.delwp.vic.gov.au.