

# **Management of water ways and adjoining land in the Mid-Goulburn River: landholder and other stakeholder actions and perspectives. ILWS Report 40, June 2008**

## **Report Summary**

A report to the Goulburn Broken Catchment Management Authority  
By Allan Curtis and Digby Race, with Royce Sample and Simon McDonald

### **Background**

The Goulburn Broken Catchment Management Authority (GB CMA) contracted Charles Sturt University's Institute for Land, Water and Society (ILWS) to explore landholder and wider community values, perceptions, priorities and actions in relation to management of the riparian zone of the Mid-Goulburn River. This research was intended to support the implementation GB CMA's Regional River Health Strategy.

The research team had previously conducted similar research in the GB CMA region in 2001 (Curtis et al. 2001). These data provided an important baseline against which to compare changes over time in aspects of landholder management of river frontages.

### **Methods**

The research methodology involved collecting quantitative and qualitative data using:

1. a questionnaire mailed to all property owners with licensed Crown river frontages in the Mid-Goulburn River (180 questionnaires posted, with a 59% response rate achieved);
2. semi-structured interviews with 12 representatives of key stakeholder groups (eg. recreational fishers, river-based tourist operators) to explore their values, perceptions, priority issues, and preferred management options; and
3. two workshops with stakeholders (agency staff and landholders) to explore their values, perceptions, priority issues and preferred management options.

## Key Findings

### Knowledge and perceptions of river health

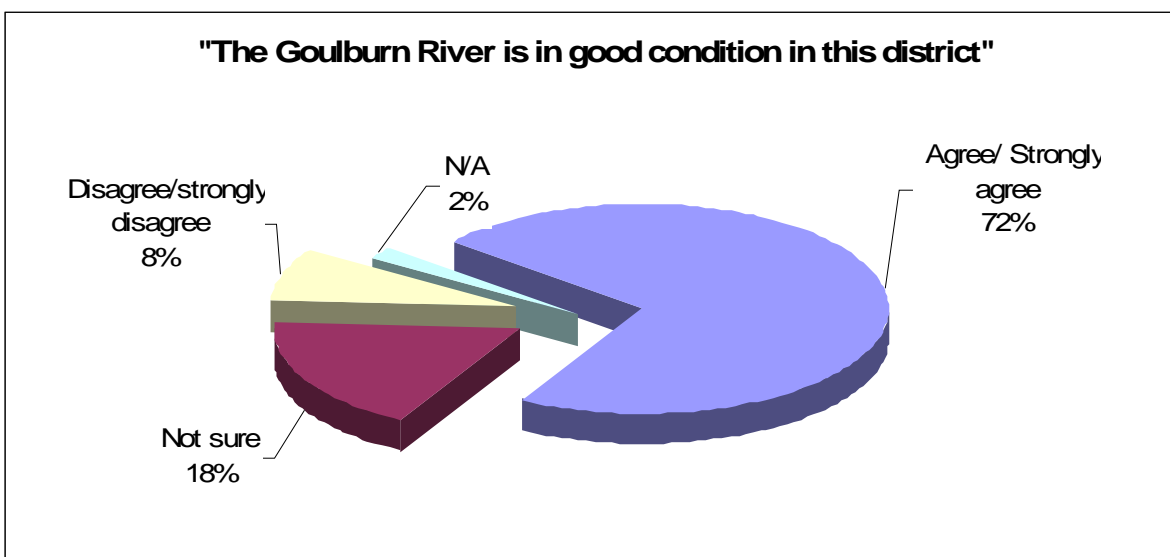
Most respondents had a very positive assessment of the current condition of the Goulburn River in their local district [Figure 1]. On balance, positive views outweighed negative views about changes over the past 10 years in the condition of the Goulburn River in the local district.

Scientific assessments of the condition of river frontages on the properties of respondents to the 2001 survey showed that most frontages were in a degraded condition (Wilson et al. 2006). Landholder assessments of their frontages reported in the 2001 survey were consistent with these scientific assessments. In the 2007 survey, respondents were almost evenly divided between those providing generally positive and negative assessments of their river frontage condition.

Survey results indicate a considerable variation among respondent's scores on items measuring their knowledge of the topics related to river health. There was only one item (knowledge about how to manage ground cover on paddocks to prevent erosion) where most respondents said they had 'Very sound/ sound' knowledge. Almost half of the respondents rated their knowledge as "sound" for items exploring knowledge of the effects of unrestricted stock access to water ways and the production benefits of retaining native vegetation. On the other hand, few respondents rated their knowledge as "sound" for items exploring how to access information from government, predicted changes to rainfall and temperature as a result of climate change, how to interpret water quality tests and the proportion of native bush remaining in the area of the Mid-Goulburn River.

Analysis of survey data established that higher self-assessed knowledge on these topics was linked to significantly higher adoption of some current recommended practices (CRP) for river frontage management. This finding suggests that investment in activities that contribute to improved knowledge of river frontage management represent a sound investment for natural resource management (NRM) agencies.

**Figure 1: Views about the current condition of the Mid Goulburn River  
Mid-Goulburn River Crown frontage licence landholder survey, 2007 (N=94)**



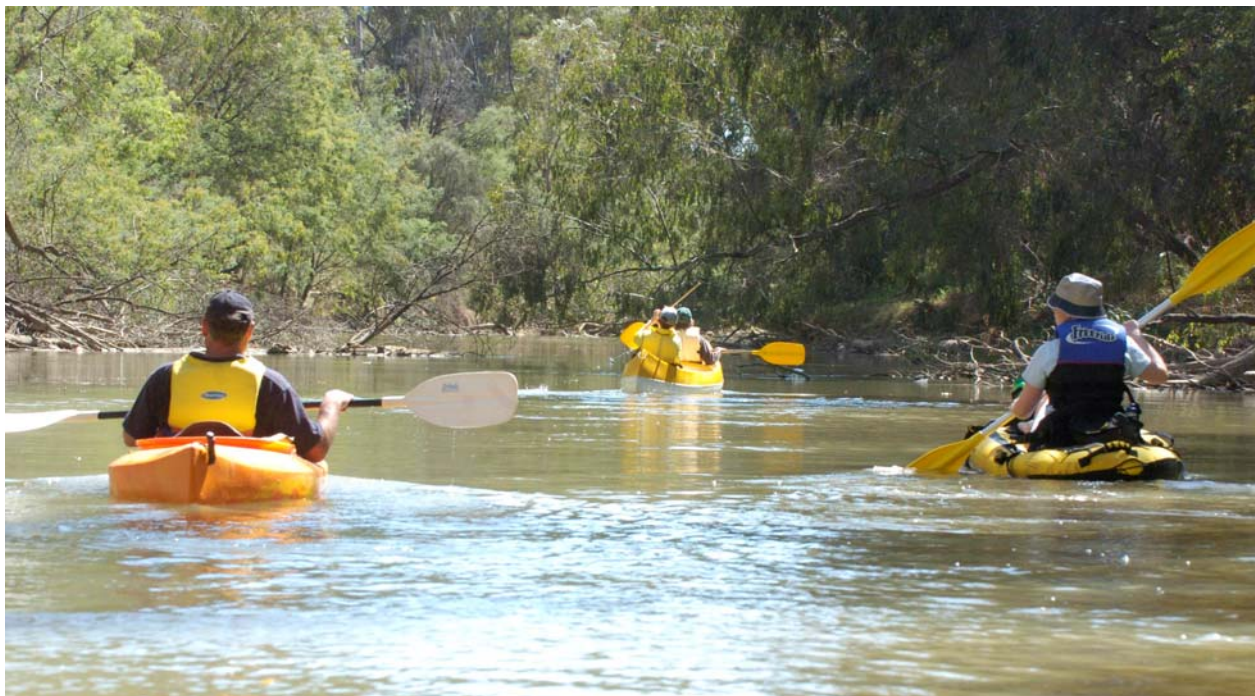
## Values associated with the Goulburn River

A large majority of those interviewed and involved in the workshops accepted that the Goulburn River is a modified environment, and needs to be managed to meet multiple objectives. The farmland fronting the Goulburn River has considerable productive potential due to the fertile alluvial soils and access to high-quality water. This productive potential translates into high economic values being attached to farmland. The Goulburn River also fulfils important functions for local residents and tourists from outside the region, including water-based recreational pursuits (eg. canoeing, trout fishing) and as part of a 'rural' experience (eg. on par with bushwalking). Interview and workshop data also suggested that the Goulburn River has iconic status – a focal point in the landscape and community. Interviewees expressed sentiments that reflected both utilitarian and aesthetic values that were inextricably linked. Indeed, for many people the river is the '*... life-blood of the region*'.

As in the past, 2007 survey data highlighted that almost all respondents attached high economic, social and environmental values to their river frontage. Specific values that were important to most respondents included:

- '*Adds to market value of the property*';
- '*Is an attractive area of the property*'; and
- '*Vegetation on the frontage holds the banks and stops them crumbling*'.

These findings suggest that those attempting to engage landholders and the wider community in river frontage management need to appeal to each of these value sets.



## Attitudes to river management

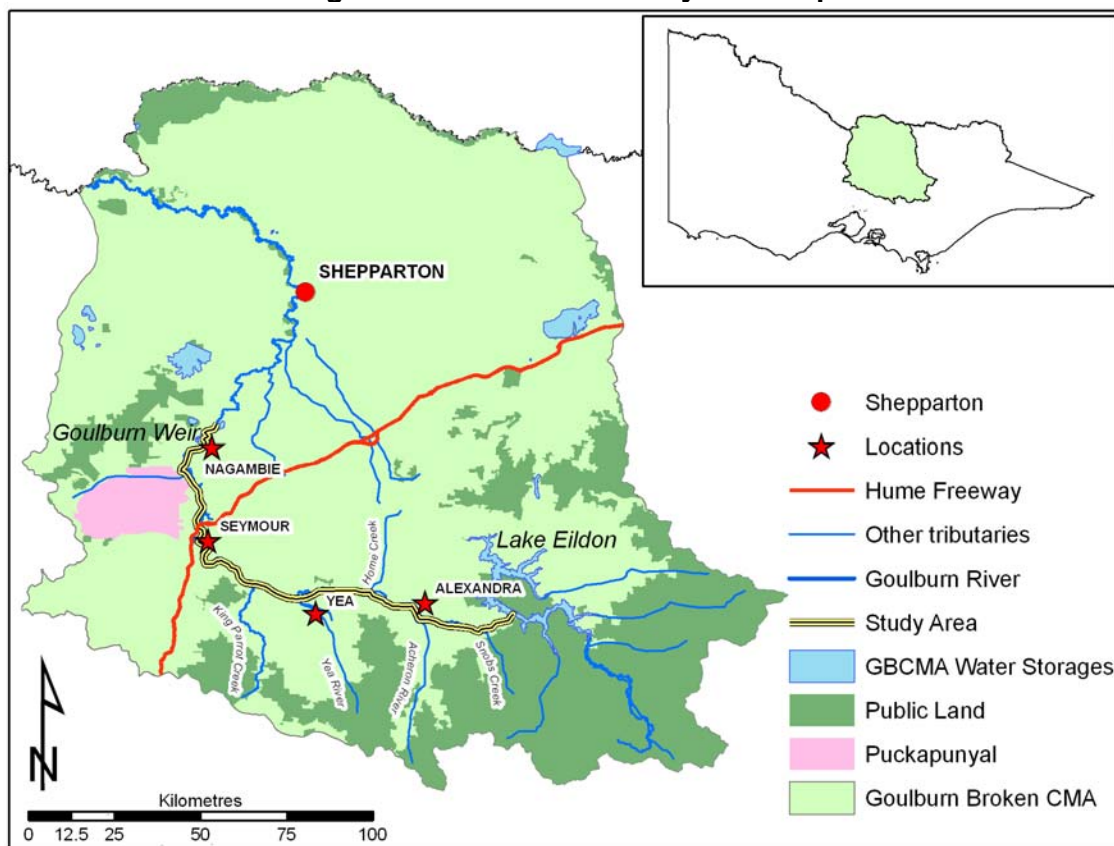
Most of the 2007 survey respondents agreed that prospective new landholders should be informed if government funds have been spent to improve land and water management on a property. There was also general agreement with the proposition that new owners should abide by agreements entered into by previous owners where public funds have been spent on a property.

Notwithstanding these generalisations, responses to other survey items suggest there are more widely held reservations about actions likely to diminish landholder autonomy in relation to NRM. For example, only a small minority “agreed” that governments must take more responsibility to ensure that landholders meet their responsibilities; and opinion was evenly balanced about whether in most cases, the public should have the right to access river frontages managed by private landholders.

## Constraints to further adoption of CRP

The cost of materials and equipment to carry out work was the constraint most frequently identified by survey respondents. Concerns about the impacts of fencing river frontages to manage stock access (water access and harbour for pests) were also rated as an important constraint by more than half of the respondents. Around half of the respondents rated access to on-site technical advice and lack of time or access to labour as “important” constraints. These ratings were consistent with those derived from the 2001 survey.

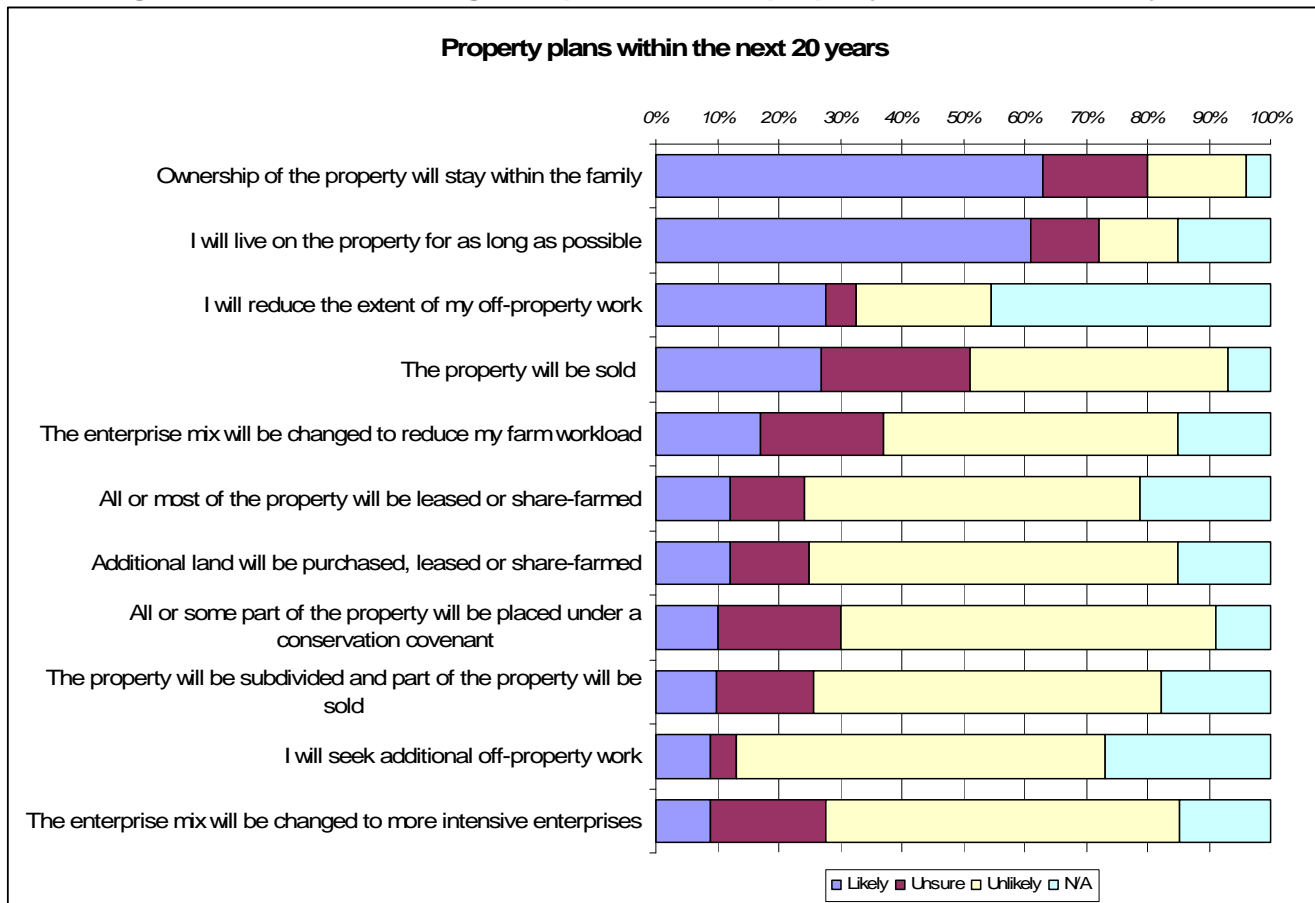
Figure 2: GB CMA and study area map



## Long-term plans for property

Most survey respondents said that it was “likely” that ownership of the property would stay within the family for the ‘next 20 years’ [Figure 3]. Such a high level of intergeneration property transfer would be contrary to current trends in property transfer in other parts of rural Victoria. Given that almost half of the respondents were absentee owners we would expect there to be a lower rate of family succession in the area of the mid-Goulburn River than for areas where there are a higher proportion of resident owners.

**Figure 3: Landholders long term plans for their property within the next 20 years**



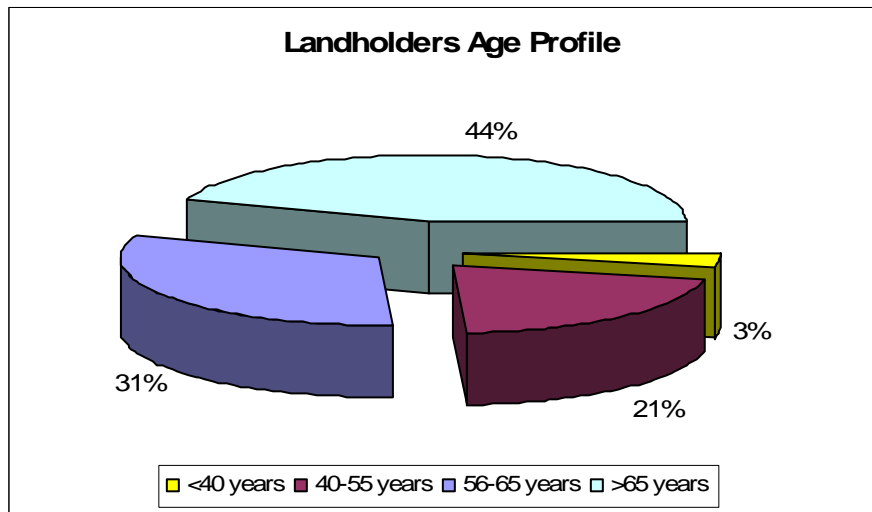
## Other social characteristics of respondents

Our previous study of river frontage owners in the Goulburn Broken established that frontage owners were very different to other landholders in the Goulburn Broken Dryland (Curtis et al. 2001; Curtis et al. 2000) in that they owned smaller properties (36 ha compared to 128 ha), were less likely to be farmers (37% compared to 54%), and slightly older (56 years compared to 55 years).

Data from the 2007 survey suggests that licensed Crown land frontage owners in the area of the mid-Goulburn River are mostly non-farmers (63%), operate small properties (60 ha) and in many instances, live-off property (46% absentees). With a median age of 63 years, the survey respondents were much older than most landholders in the Goulburn Broken Dryland [Figure 4]. The extent that this is an ‘aged’ cohort is illustrated by the recent finding that only 12.5% of

farmers continue working on-property past the official Australian retirement age for men of 65 years (Australian Bureau of Statistics 2007).

**Figure 4: Age Profile of Mid-Goulburn River Frontage Licence Landholders 2007**



The extent that mid-Goulburn River licensed Crown land frontage owners are different from others in the GB CMA would appear to have important implications for engagement of these landholders in the GB CMA River Health program. For example, our research in Corangamite (Mendham and Curtis 2007) established that landholder length of residence, place of residence and occupation are important factors affecting adoption of CRP. NRM agencies often report that it is difficult to engage absentee property owners in NRM programs, as they can be difficult to contact during standard business hours and are less likely to have strong connections to the local social networks.

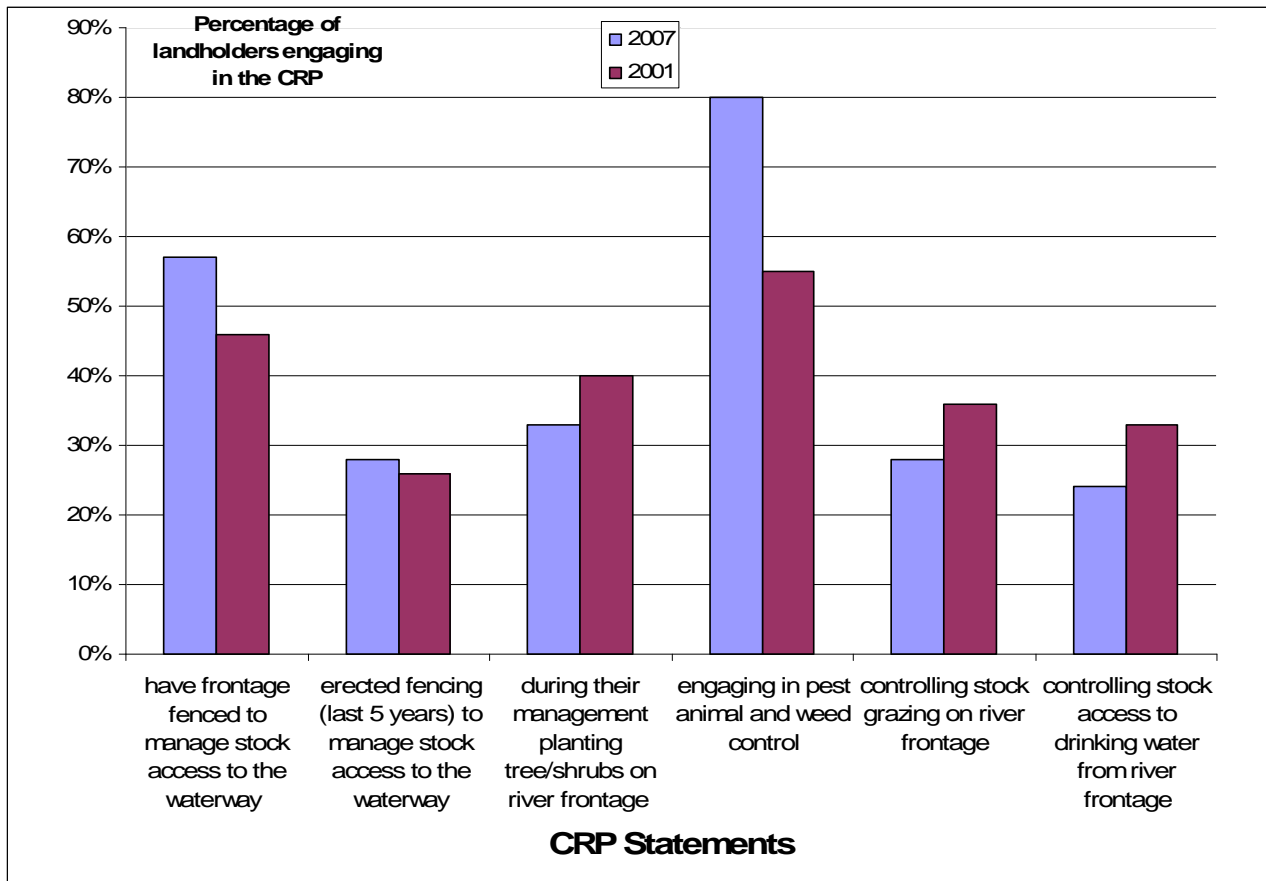
### **Adoption of CRP**

Key findings from the landholder surveys, supported by interview data, are that adoption is occurring at low rates and overall, this is unlikely to change in the next five years. For example:

- most respondents said they had not undertaken fencing or revegetation work along their river frontage during the past five years;
- a majority of respondents said that stock were able to access the river frontage for grazing and for drinking water for more than a week at a time during 2007 [Figure 5];
- while the median length of river frontage on the property of each respondent to the 2007 survey was 970m, the median amount of river frontage fenced was only 141m, suggesting that about 15% of the river frontage in the respondent properties was fenced to manage stock access;
- most respondents reported they were not planning to undertake work on the river frontage in the next five years that involved fencing to manage stock access; and
- most respondents reported they do not intend to install off-stream water supplies over the next five years.

On a positive note, most survey respondents had undertaken pest animal and weed control in the past two years (at an estimated mean cost of \$1,526). The only substantial changes over time in the adoption of CRP included in the 2001 and 2007 surveys were for a higher proportion of respondents in 2007 to be involved in pest animal and weed control (up from 55%) and a lower proportion in 2007 involved in planting trees/shrubs over the past five years (down from 40%) [Figure 5].

**Figure 5: Landholder adoption of CRP**  
**Per cent undertaking CRP for 2007 and 2001 surveys**



### Confidence in CRP

While most 2007 survey respondents agreed that fencing their frontage would allow them to better manage stock access to the waterway – most survey respondents expressed reservations about fencing of river frontages. The key point here is that there are a number of areas of concern and that these concerns are significantly impacting on adoption. For example, about half of the respondents were concerned that fencing would: make it difficult to water stock, establish harbour for pests, create a fire hazard, increase management time, reduce the area for grazing or cropping, and floods would damage fences.

Low levels of confidence in fencing were reinforced by findings that most respondents thought grazing of domestic stock has had little impact on native vegetation on river frontages; and a substantial minority thought set stocking is usually better for retaining native vegetation in river frontage paddocks than intensive grazing for shorter periods. Comparison of 2001 and 2007

survey data suggest that there is a trend to lower levels of confidence in fencing as a CRP. For example, there were increased levels of concerns that fencing would make it difficult to water stock; create harbour for pests; increase management time and reduce the area for grazing and cropping.

A substantial minority of survey respondents disagreed with the statement that *'Removing willows is an important part of work to improve the condition of native vegetation on river frontages'*. This response was consistent with the views of some interviewees who reported that the high cost of willow removal and establishment of native vegetation was not justified in terms of providing better erosion control. That is, some landholders felt willows had been satisfactory in terms of minimising the erosion of river banks, and that native vegetation would not offer a significantly better outcome.

Some interviewees and workshop participants reported that landholders' confidence in CRP is likely to be affected by the manner information is communicated and the way on-ground work is undertaken. That is, some landholders may accept the CRP but not accept the way it is presented to them or how it is implemented (eg. several landholders reported they were given insufficient notice before work was undertaken by contractors and that there was little negotiation about how the CRP were implemented).

## Government support

There were significant relationships between adoption of CRP, including fencing erected and number of trees/shrubs planted and involvement in government programs. Given the relatively low rate of implementation of fencing and the low level of confidence in fencing-related CRP, the research team raises the concern that there may be limited implementation of this, and possibly other CRP, outside direct program investment by government. This is an important finding and emphasises the importance of the GB CMA evaluating approaches to landholder engagement. Information in this report about the values landholders attach to river frontages may provide some guidance about how to make effective appeals to landholders.

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