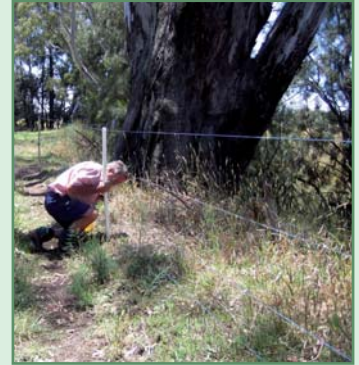


REMOVAL AND MANAGEMENT OF WILLOWS IN THE UPPER CUDGEGONG

overview of the project

The aim of this project was to eliminate willow trees from a length of the Cudgegong River in Central Western New South Wales, to improve biodiversity values and water quality in the area. Willows are stubborn, invasive weeds that thrive along waterways and cause blockage and flooding, erosion, poor water quality and loss of biodiversity due to shading and exclusion of native plants. The project has had a dramatic impact on the viability of the river, removing over 98 per cent of the willows. The water has not only improved in quality but in quantity, allowing renewed flow through some previously heavily infested sections. A large number of native seedlings have been planted to replace willows, and existing native vegetation has been able to regrow and become dominant now that competition has been removed. The awareness of the problems caused by willows has increased among the rural community as a result of this work.



Fencing to protect native vegetation

how the project was carried out

The Committee instigated a mapping project to determine the density and number of willows along a 40 kilometre section of the river and its tributaries. Qualified willow control experts were employed to carry out chemical treatment of the trees. They injected the stems using a variety of methods, and after a few months the dying trees were removed. The site was then rehabilitated by planting native trees and shrubs. Volunteers including Cudgegong Catchment Committee members, residents and local landholders planted 11,000 seedlings in the project area. In addition to the



Removing dying willows

plantings, existing native vegetation was protected from grazing stock by fencing which encouraged regeneration.

The committee organised a series of field days to promote the project and raise awareness of the environmental damage caused by willows. The displays at these events were largely targeted at farmers, to show them the benefits of eradicating willows and the best methods for removing them strategically and legally.

outcomes now and in the future

Out of the 385 treated trees, 23 showed a small amount of regrowth, but the percentage of growth on each tree was small, often from one isolated branch. Follow-up visits were organised to treat the

surviving parts. This step was critical to the success of the project and resulted in an overall eradication rate of 98.85 per cent.

Landholders observed that water quality and flow improved within two days of willow removal. These observations were made visually by noting increased flow rate downstream from areas of previously dense willow growth. This level of improvement has encouraged landholders, whose participation is crucial to maintaining a weed free state in the future.

The field days have raised awareness among the public and landholders of the environmental impact of willows. Continuation of the educational program in future displays and field days will help ensure the sustainability of the project. The Committee is now focussing its attention on Lawson's Creek, a major tributary of the Cudgegong.

benefits, challenges & lessons learned

This project was successful in rejuvenating a riparian area degraded by a heavy infestation of willows. Almost all were removed and the site was successfully revegetated with native plants, which will help to prevent future re-establishment of unwanted exotics and maintain water quality and flow.

A major challenge to the project was the voluntary nature of the landowners' involvement. A few declined to be involved, which meant that these sections of the river will continue to support thriving willows. The committee acknowledge that a future management plan is essential to ensure that willows do not reinvade the area. The impact of weather is a potential problem in any environmental restoration plan, and the revegetation program was delayed by drought in this case.