

## Problem Examples



*Willows spread their roots into the bed of a watercourse, slowing the flow of water and reducing aeration. They form thickets which in high flows can divert water from the main channel causing flooding and erosion. Willow species are no longer a desirable tool for stream stabilisation.*

*Willows can spread by fragments of stems or twigs breaking off as well as by seed, and can establish many kilometers downstream. Pussy willows seeds have traveled over Mt Hotham to become established in this catchment.*



*Individual willow trees in East Gippsland were planted many years ago. As willows age they begin to fall over or drop branches. These branches or twigs have the potential to block stream flow in high floods causing the river to change course.*

## For Further Information

The East Gippsland Catchment Management Authority values community input into the work it undertakes and would encourage anyone to contact us on any issue of concern. Our contact details are:

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### Front cover photograph

*Willow infestation, Watts Creek in Wuk Wuk*



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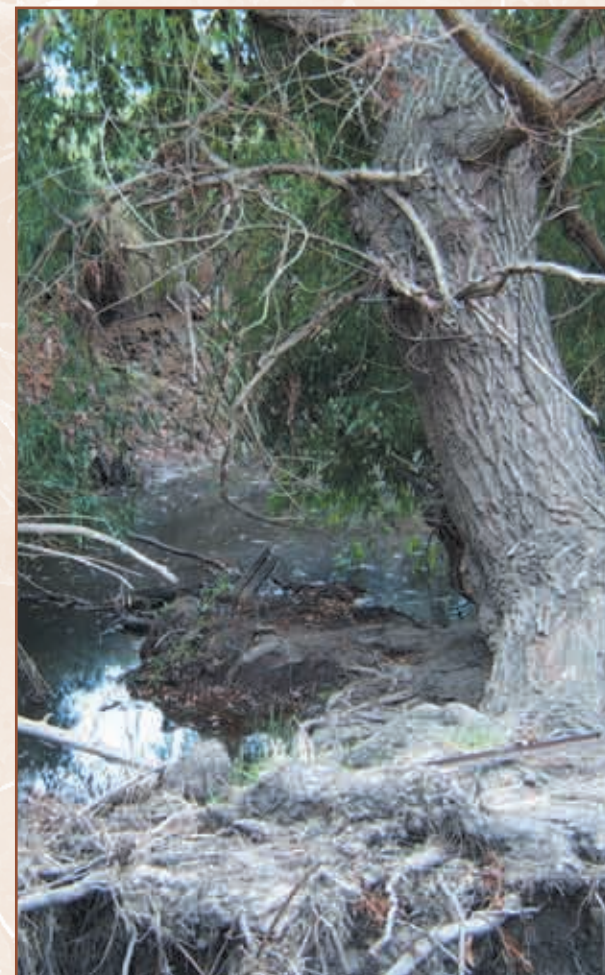


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# Willows

## Weed of National Significance





## History of Willows

Following the practice of native vegetation removal along river banks, over 150 years ago, willows (a non native species) were introduced for various reasons including control of river erosion. Willows were selected as they were a species that were easily propagated, fast growing, had few predators and had a strong, deep root system that was considered effective in binding soil. Willows were also planted for the purposes of shelter and ornamental value as well as supplementary stock feed.

In 1999 willows were listed as one of Australia's worst weeds, a Weed of National Significance, due to their highly invasive nature and negative impact on the environment.



*Willows clogging and causing erosion in the lower Mitchell River near Bairnsdale.*



*Native vegetation planted following removal of willows on the Riparian and Rainforest Restoration Trial Project.*

## Problems with Willows

When willows were first planted it was considered that seed production would rarely or never occur and that local spread would only happen due to deliberate plantings. Like cane toads, willows spread out of control, mainly by twigs and branches breaking off, floating downstream and re sprouting. It has since been discovered that many types of willows crossbreed and have also spread aggressively by seed.

Willows threaten the native animals and plants of our rivers by providing little food and no shelter over the cold winter months. They cause massive physical changes to streams with blockages, increased flooding, erosion and channel realignments as well as damage to infrastructure.

Willows also drop a large number of leaves within a short period of time which not only robs the river of vital oxygen but also makes them ineffective as shade trees. Before willows drop their leaves they “suck back” the nutrients which means that the food value of the falling leaves for aquatic fauna is almost nil, unlike native species.

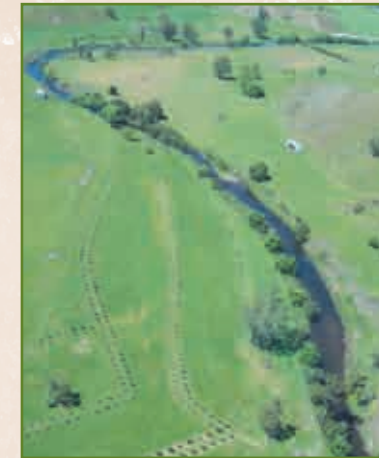


*Aerial picture taken of Buchan River site prior to willow removal.*

## Benefit of Willow Removal

Replacing willows with native vegetation has many benefits. The taller growing native trees shade much more of the river therefore keeping it cooler in summer and maintaining higher oxygen levels. Native species attract a much larger number of insects providing food for fish. Native hardwood trees also provide important and long term habitat for instream animals and invertebrates when they die and fall

into the rivers. Taller native trees allow smaller trees, shrubs and undergrowth to flourish providing bank stability.



*Aerial picture taken of Buchan River site following willow removal.*

## River Health Strategy

The East Gippsland Regional River Health Strategy (Strategy) is about looking after the health of our rivers and floodplains. The Strategy has identified where willow control is most urgent.

The East Gippsland Catchment Management Authority (EGCMA), as the “caretaker” of river health in this region, prepared the Strategy in partnership with the community and other government agencies.

The Strategy can be found on the EGCMA's website ([www.egcma.com.au](http://www.egcma.com.au)) and contact details are on the back page.