

No6. Willow Control Policy

Background

Following the widespread clearing of native tree vegetation in preparation for farming the land, soil erosion became a matter for concern. Willow establishment on the banks of waterways was recommended as a relatively costless, guide and reliable method of stabilising our relatively thin soils. So easy in fact, that what was considered a benefit has now turned into a state-wide weed problem.

There are two forms of willow spread, namely -

1. by willow twigs breaking off from established willows and taking root elsewhere, and
2. by certain willow specie producing viable wind born seed.

The latter has resulted from the introduction of male and female plants, such as black willow (*Salix nigra*) and a hybrid willow from New Zealand. Both have been causing uncontrolled and widespread infestation. This is especially so along the State's waterways.

The NSW Government Gazette Number 56, issued 20 March 1998, declared all willows (*Salix* spp.) noxious under the NSW Noxious Weeds Act, 1993 (amended order number 12, 1998) with the specific exception of weeping willows (*S. babylonica*), pussy willow (*S.X calodendron*), the sterile pussy willow (*S.X reichardtii*), and within the Maclean Shire only black willow (*S. nigra*). In addition, *Salix alba* var. is being control grown under licence at Koraleigh in NSW for the commercial purpose of cricket bat production.

The noxious category W4g of the NSW Noxious Weeds Act 1993 applies in this case and requires that, with the exception of those specie exempted or grown under licence, it is an offence under this Act to sell, propagate or knowingly distribute noxious willows³. Unfortunately this W4g category does not require land holders to remove willow infestations, and as such the natural spread of infestations continues on for future generations to confront.

Willow specie that are causing the greatest problem are black willow (*S. nigra*), crack willow (*S. fragilis* var. *fragilis*), basket willow (*S. X rubens*), and the New Zealand hybrids (*S. matsudana* X *alba*).

Glisten G.W., one time Chairman of the NSW Noxious Weeds Advisory Committee, is on record' as stating that excess willow growth causes the choking of water Rows and will lead to erosion, flooding, and puts at risk rather that protects river structures. Water quality and quantity are also adversely affected. Willows are a gross user of water" and change the morphology of the watercourse. In addition, the ecological deterioration of small streams due to willows has been shown to arise from a

- significant increase in the water nutrient levels;
- reduced dissolved oxygen concentrations in the water;
- reduced light intensity reducing native aquatic organisms;
- eliminating insects that naturally exist on native trees⁷; reduced physical habitat for downstream fauna; and the
- displacement of terrestrial, semi and aquatic native vegetation.

The overall objectives in classifying willow as noxious in this way are to protect, restore and enhance riverine morphology and ecology in an ecological sustainable manner.

Landholders are advised⁸ to seek a permit for poisoning willows on protected land, such as riverbanks, under the Soil Conservation Act, 1938, from the NSW Department of Infrastructure, Planning and Natural Resources.

NSWCFA Willow Policy (Amended 15 May, 2004)

The NSW Council of Freshwater Anglers will actively encourage the

1. Total eradication of noxious willows, that is other than those currently exempt or grown under licence, from all waterways throughout NSW by stem injection with an appropriate herbicide. It is essential to kill

from all waterways throughout NSW by stem injection with an appropriate herbicide. It is essential to kill the root growth before removing the above ground wood, and the latter should be by cutting at ground level. On no account should the soil be disturbed, by bulldozing and the like, to prevent erosion.

2. Government's unqualified classification for all noxious willows, such as to prevent their further spread, and pursue a program with landholders, local councils and State Departments that will encourage the eventual eradication all noxious willows from all waterways.
 3. NSW Departments of infrastructure, Planning and Natural Resources, Agriculture and other such Bodies possessing control over willow infected areas to promote the eradication of noxious willows, and act where appropriate to achieve the same.
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²Mitchell, D.S. & Frankenberg, J. 1993, *Willows in Australia: Weeds or Beneficial plants*, Murray-Darling Freshwater Research Center paper.

³Cremer, K.W. 1997, Feral Willows Tamed to Prevent Erosion; *Farming Ahead*, paper no. 69, pp 12-13.

⁴Cremer, K.W. 1995, *Willow Identification for River Management in Australia*, CSIRO Technical Paper No3.

⁴ *Willow Trees*, 1998, Oracle, Journal of The Orange Trout Acclimatisation Society Inc., November issue No. 9, pp 3-5.

⁵Trevaskis, I. 1998, Investment - Money Trees, *The Bulletin*, September 25.

⁶Scholes, D. 1988, *Ripples Runs and Rises*, Kangaroo Press, Kenthurst, NSW.

⁷Reed, M. Research Project Findings - How Willows Harm Waterways, *Acre Australia*, Vol. 3 No. 6.

⁸Department of Water Resources AGDEX 305/10, 1944, *Controlling Willows*, Riverside Advisory Notes for Rural Landholders.