

REMOVAL OF WILLOWS AND CORAL TREES AND RIPARIAN RESTORATION

overview of the project

This project by Wollongong City Council has removed exotic trees from riparian and bushland habitats at 26 locations across the Wollongong Local Government Area (LGA).

Many creeks in Wollongong are degraded due to the presence of introduced coral and willow trees growing on the creek banks and within the watercourse themselves. Debris from these trees can block pipes and culverts and they have also been found to be a contributing factor in large scale flood events such as the one that occurred in Wollongong in 1998. The aim of this project was to reduce the flood risk due to these vegetation blockages, and to support the work of Bushcare groups working in the Wollongong LGA. Between June 2005 and June 2007 a total of 586 weed trees were removed, with many being fed through a mulcher on site to produce mulch for weed control.



Stumps were painted with Bioactive Roundup

how the project was carried out



Coral tree on the banks of Robins Creek

Sites selected for tree removal were either identified as having a flood risk due to trees growing in the creek, or were sites where Bushcare groups or contractors were currently working. Council staff and tree removal contractors used chainsaws to remove trees from the 26 priority sites. At two sites with particularly steep banks, a crane was used to lift cut trees out of the creek. Immediately after cutting, the stumps were

treated with herbicide (Bioactive Roundup) to prevent regrowth. The stumps were left in the ground to reduce the potential for erosion, particularly on creek banks and steep slopes. Cut trees were either chipped onsite and used as mulch for weed control, or taken to Council's tip for recycling.

Bush regeneration contractors, Bushcare groups and school students followed up at the majority of sites with weed control work and planting of local plant species. Where creek banks were left bare after tree removal, anti-erosion matting was placed over the bare soil. At a few sites, natural regeneration from the seed bank was so good that there was no need to undertake revegetation.

outcomes now and in the future

A total of 388 coral trees, 143 willows, 19 elms, 14 privet, 10 camphor laurels, nine black wattles and three Canary Island date palms were removed from creeks and bushland sites during the project. This has reduced the potential flood risk, particularly along Cabbage Tree and Byarong Creeks which were both badly affected by the 1998 floods.

Follow-up work at each site varied from natural regeneration and weed control to erosion control works and extensive plantings. At Towradgi Creek bush regeneration contractors have planted over 1000 plants, while at Whartons Creek school students were involved in a program that planted 400 plants at the site. Weed control work is continuing at the majority of sites either through professional contractors or volunteers.

benefits, challenges & lessons learned

The two primary benefits of the project are a reduced risk of flooding in several major creeks in the Wollongong LGA and on-ground support for the work of local Bushcare groups. The presence of weed trees had restricted the work of some Bushcare groups as they were unable to remove problem trees themselves due to safety issues.

The biggest challenge faced by tree removal projects is managing the effects of the increased light levels that can result in the rapid growth of a variety of weeds. Selecting sites that tied in with Bushcare groups or contractors already working in the area allowed Council to get the best value from the grant, by not having to undertake additional rehabilitation work. These savings meant additional tree removal work could be undertaken at other sites.

Recycling the trees into mulch also reduced the project costs, as it saved tipping fees at Council's waste depot. Council has learned from previous experience that coral trees can be recycled into effective mulch as long as the wood is free of other weeds. Trees containing large infestations of climbing weeds such as Madeira vine, or trees that are fruiting or seeding are not suitable for mulching. Mulched material needs to be matured in piles for a period of time before it is spread out, to prevent any re-shooting from leaf nodes.