

Culturally significant trees review

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Introduction

Local Government recognises the importance of trees in the urban and rural landscape. Trees are an important community asset, providing a number of benefits.

Most communities have planted trees or gardens to commemorate a person or important event. These plantings help define communities and are a living reminder of significant local history. Many native plantings have significance for local Aboriginal communities, some of these trees are obvious, such as shield or canoe trees, but others may be less visible.

From a local government perspective many of these important trees are located on public land or roadsides, and may either be at risk from adjacent development or maintenance activities, or may through age, proximity to other structures or neglect, be a hazard themselves.

Because of their potential significance to the local and broader community these plantings should be given special consideration and pro-actively managed, and potentially replaced or relocated.

Why manage culturally significant trees?

The primary driver for managing any infrastructure on land under the care and control of Council and accessible by the public is risk minimisation. Trees have been subject to a review by the Local Government Association with the Final Report of the Independent Enquiry into Management of Trees on Public Land being released for consultation in October 2010.

A recommendation of this report (Recommendation 1) is that *The Board recommends that all Councils develop and adopt a formal Tree Management Policy with appropriate linkages to the Council's strategic management plans.*

Recommendation 2 states that, *The Board recommends that tree management policies be developed through consultation and include procedures to keep the community informed of tree values (including community education programs), the adopted objectives of tree management and how they are being achieved.*

Recommendation 3 states that, *The Board recommends that all Council's adopt a pro active approach to managing the risk in existing trees.*

The development of detailed guidelines and policies relating to the management of culturally significant trees provides a more specific suite of management tools to assist Council's in addressing the complexity of managing these trees.

Policy objectives

- To enhance Local Government's reputation within the community, as a steward and manager of trees.
- To maintain and improve a quality tree canopy within their areas.
- To increase awareness and to educate the community, developers and Council staff on the value of all trees, and specifically culturally significant trees in the landscape.
- To identify and preserve culturally significant, valuable trees based on historic, visual, cultural, social and ecological criteria.
- To broaden the emphasis from tree planting and preservation to an overall approach of urban tree management with a specific acknowledgement of culturally important trees and plantings.
- To document and standardise process and procedure to ensure consistency in the management of culturally significant trees and plantings.
- To maintain culturally important trees over time by planning for logical, orderly and agreed replacement to prevent senescent trees from posing increased risk.

Mount Barker Council, in partnership with TREENET, and with funding support from the LGA has undertaken a project to develop a suite of management policies and guidelines to enable these objectives to be met. Sam Cassar from Symatree has been engaged to develop the guidelines, and through close collaboration with the project steering committee has accurately reflected our project objectives.

These guidelines will be available to all Councils to use, through the LGA.

Culturally significant trees: A brief TREENET case study

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Introduction

The recognition of trees as important parts of our history and heritage is well documented. Ivens (1981) commented in relation to the historic trees of South Australia:

'The tangible and visible history of our State, in the form of man-made monuments will take us back no more than 150 years, but trees are living monuments capable of transporting us 400 years into the past'.

The need for the recognition and protection of trees of heritage, landscape and biological significance in Australia has been an urgent matter in all Australian States for over 30 years (Moore 2001). It is both surprising and disappointing that over that time the long term preservation of such trees has not been guaranteed in any State despite the best efforts of organizations, such as the National Trust of Australia or the various attempts by State and Local governments to provide legislative protection.

The National Trust of Australia, Victoria has an active State register of significant trees, which utilises a set of criteria (Table 1) for registering trees. None of the trees registered as heritage, notable or significant have any legal standing that affords them legislative protection. Some can be linked to local government regulation or parliamentary statute, however, the real protection and value of such schemes is that they bring specimens to public attention and raise the public profile and interest in the future management of the trees.

Table 1: Guidelines to the categories used for nomination of significant trees

Categories

1. Any tree which is of horticultural or genetic value and could be an important source of propagating stock, including specimens that are particularly resistant to disease or exposure.
2. Any tree which occurs in a unique location or context and so provides a contribution to the landscape, including remnant native vegetation, important landmarks, and trees which form part of an historic garden, park or town.
3. Any tree of a species or variety that is rare or of very localised distribution.
4. Any tree that is particularly old or venerable.
5. Any tree outstanding for its large height, trunk circumference or canopy spread.
6. Any tree of outstanding aesthetic significance.
7. Any tree which exhibits a curious growth form or physical feature such as abnormal outgrowths, natural fusion of branches, severe lightning damage or unusually pruned forms.
8. Any tree commemorating a particular occasion (including plantings by Royalty) or having associated with an important historical event.
9. Any tree associated with Aboriginal activities.

The case study

The tree

The Separation Tree in the Royal Botanic Gardens in Melbourne is an old and significant river red gum, under which the separation of Victoria from New South Wales was celebrated in 1850. The tree was already mature at the time, and has long been registered by the National Trust of Australia as it meets many of the criteria listed in Table 1.

In August 2010 the tree was badly vandalised by someone who tried to kill it through ringbarking. Fortunately, the perpetrator(s) did not understand what they were doing:

- ring barking is a very slow killing process
- they probably meant to girdle but cutting the wood was too hard to do
- the tree did not wilt immediately as they had probably hoped
- there was the opportunity for remedial action

The tree was special in that it was of pre-European settlement age, historic, well-documented and growing in an ideal place for its future management. It was always going to get special treatment that would not be available, or even considered for other trees

Some tree anatomy and physiology

A proper understanding of the xylem and phloem transport systems is useful to a practicing arborist. Ringbarking is the removal of the bark to the cambium. It blocks phloem but not xylem transport. Water and nutrients get to the canopy from the roots, but if the break is wide enough for the tree not to grow over the wound then sugars and hormones do not get to the roots. The root system gradually starves and eventually the tree dies after 3-5 years.

Girdling is the removal of bark, cambium and xylem (usually the sap wood and some heart wood). Water transport is blocked and the canopy often wilts within 24-48 hours and the canopy above the cut dies

If bark is removed from a tree:

- to kill over the longer term a complete ring has to be removed so assess how much bark and cambium is intact (in this case about 20% was left)
- often as little as 10% of the circumference of bark is required for a tree to remain healthy
- replace any bark that you can immediately (in this case it took 3 days to replace the bark and some had dried)

Arboricultural management

A few days after the attack, all of the removed bark was put back in place and it was hoped that some of it might re-attach if the tree produced callus. The bark was held in place with nylon strapping. The damaged area was shaded, kept moist and protected. The tree was mulched and the soil moisture was monitored and maintained.

Unfortunately the tree did not produce callus that would have allowed the retention of the replaced bark and after about 6 months it fell off. However it was anticipated that much, if not all, of the bark that had been re-attached would be shed, and so this did not cause too much concern

The summer was mild and wet, and the tree remained healthy despite heavy insect grazing. It produced at least two flushes of new growth over the spring and summer after the damage. A thin band of callus has grown around the damaged surface, which gives some hope for the future. The spring of 2011 will be crucial in determining the future of the tree

So far things have gone as well as can be expected with the mild summer being a great benefit. It will be concerning if there is no evidence of greater callus production by the end of 2011, but old, large trees often take a few seasons to respond to damage. Humans want quick responses, but large, old trees move to their own rhythms of time and they are often much slower than ours.

The tree will be monitor regularly over the next few years. There is hope that there will be greater callus produced in the 2011 spring flush of growth. Once again care will be exercised with irrigation regimes and pest and disease protection, particularly over the coming summer.

Conclusion

The garden management, staff and contractors have been magnificent in their care and concern for the tree. While the long term prognosis is still uncertain, everything has gone as well as could be hoped. There is genuine reason to hope that the tree will still be making its historic contribution for many years to come.

References

Ivens R (1981), *Historic Trees of South Australia*, Island Press, Kingscote, King Island

Moore G M (2001) *Ancient and Significant Trees: Protecting Community Assests and Heritage*, in *Management of Mature Trees*, Proceedings of the 4th National Arborists Association of Australia, Sydney. Also available at www.nattrust.com.au