AS WE THINK – SO WE MANAGE

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This paper discusses risk management as it applies to urban amenity trees. My purpose is not to set out a particular authority's model for review or to explain what risk management is – that has been extremely well covered in recent years – rather, it is to explore the reasons I believe tree risk management poses such difficulty to bringing it into routine practice.

My conference presentation will review graphically the approach adopted by Newcastle City Council in addressing its tree risk management responsibilities.

Forest researcher Chris Maser [1] applied the phrase '*as we think, so we manage*' in his critique of US forestry practices - it is worth exploring Maser's concept further as it seems to me to be a very apt description of a very common approach to managing urban amenity trees.

In my eighteen years of managing public trees I have experienced a most diverse range of human behaviour in the presence of trees. I have concluded that a significant proportion of urbanised people are simply remarkably naive in their understanding of trees, and characteristically ambivalent in their relationship with the trees that grow in their midst. I believe most local authority tree officers will support this observation. This leads to many discussions concerning trees being made into a vehicle for passing insults, often about 'greenies', or for expressing opinions that are clearly couched as 'animal chauvinism' eg "its not native so why save it" or "Plane trees don't belong in this Country" and so on.

When people unquestioningly accept that by definition trees are dangerous, and we apply Masers concept '*as we think, so we manage*' then trees will be managed accordingly - as dangerous objects.

If people unquestioningly accept that trees intentionally disrupt and invade "my pipes", threaten "our cables", crush and crack "our infrastructure", bring down "our power lines" and so on, then people will support and demand tree management systems that are defensive, reactive and exclusive.

A tree management strategy based on false beliefs, limited understanding and inappropriate practices, inevitably devolves to a regime of intolerance of any tree that does not conform to pre-set ideals. In such a situation tree managers and tree owners become targets of anger and are pressured to act as tree regulators, root controllers and ultimately tree mortician's. They will be made responsible for eliminating the dangers as people perceive them - or face the wrath of an indignant community and the law.

This scenario presents a potentially intimidating work environment for tree managers and can severely dampen public enthusiasm for tree planting.

When communities accept that despite their acclaimed values, medium to large sized trees pose a danger, then fear corrodes thinking until it seems responsible to support programs and practices that efficiently diminish the 'dangerous trees' in any way possible - and so the community achieves its short-term goal of absolute tree safety.

Despite the lack of supporting statistical evidence, urban people very commonly fear that large trees will fall on them or their houses. A very common response to such fear is to reduce tree height by 'lopping' and to argue for the exclusion of all large or medium sized trees from new planting projects. This phenomena can be observed across much of urban Australia as street trees shrink to meet the absolute safety demands of energy distributors, traffic authorities, water and sewer authorities and others. Small so-called 'frangible' trees now replace larger species near roadsides, and shrubs replace street trees under powerlines.

Of course life provides no such absolute safety and thus unchallenged community fears can become a severe hindrance to progressing toward the goal of a truly sustainable society.

CLEARING THE DECKS FOR ACTION

Under pressure from Governments, insurers and customers to provide a 100% efficient service energy distributors [2] are seeking to remove as many impediments to their distribution goals as possible – this means removing 'threatening' trees and severely restricting future planting to non-threatening species that impose no costs whatsoever onto the authority. That such trees, if that is what they can be called, do not provide any substantial eco-services as returns on our investment is not relevant to their argument because enough people accept that urban trees are only for screening or beautification.

The well established practice of *'clearing the decks for action'* – that is, clearing all trees from a piece of land in order to 'see the land' before planning for its detailed use was characterised by Robyn Boyd [3] in his scathing critique of Australian urban design and architecture in 1960.

In a chapter aptly named *Pioneers and Arboraphobes* Boyd exposed the seeds of the populist mindset I have been describing – the view that trees, especially native trees, pose a threat to social progress and a danger to live near.

That more than 40 years on far too many Australians are still trying to *clear the decks for action* suggests something is wrong.

SHORT-TERM ECONOMIC EXPEDIENCY

When we plan for trees only for the next year or even 30 years we do not account for the life span of a very large number of tree species. Such short term thinking supports short term economic expediencies – nice (perhaps) for the present generation – definitely not good for the futures.

Maser [1] argues that *short-term economic expediency* is one of our earliest thought and behavioral patterns - one that had little long term effect when populations were small but, he says that under present population and future projections, *short-term economic expediency* is the cause of increasing biological simplification and loss of vigor in the worlds ecosystems.

Clearly, thinking and planning for the longer term is essential to reversing the negative outcomes of two hundred years of short-term expedient practice. We cannot literally keep 'flogging the environment of our suburbs' while thinking only of our need to live without fear and to profit – NOW – profit for this generation, for this age,

for this culture, this corporation, this business, this government - for my view, my land values, my rights, and so on and on.

STATEWIDE MUTUAL BEST PRACTICE RISK MANAGEMENT

It is within this individualistic, populist, and unproductive mindset that the first NSW Statewide Mutual Insurance [Best] Practice Manual for Trees and Tree Roots [4] evolved.

Statewide is a mutual insurer representing 153 of a total of 174 local government Councils in New South Wales. Newcastle City Council is the largest member Council.

The first Manual inevitably reflected the prevailing social view of the tree as a nuisance and a danger – as an object to be regulated and controlled – one that must conform or be removed by its keepers.

There was no acknowledgment of the primary role played by infrastructure planning, design and maintenance, and no value was given to the contribution of individual trees or to the collective contribution of trees we now recognise as the ***urban forest.***

This is due in part to the paucity of Australian research quantifying the ecological and social contributions of trees to urban settlements. Even today in our seemingly advanced technological society, tree planting is motivated essentially by a desire to influence appearances, to quickly screen unattractive sights (eg power lines or badly designed buildings) to rapidly enhance real estate profit, or to present a government and corporate 'spin' of ecological care and concern.

Australian urban communities have a recent history of strong support for large and small scale tree planting initiatives (eg Landcare, Dunecare, Coastcare et al) but these initiatives are almost always focussed 'out there' in bushland or on farms or on 'waste' land – they are rarely focussed on gardens and streets where in fact people spend most of their lives.

Embracing the concept of urban forestry would provide an opportunity to focus the community onto the quality of their backyards (if any still exist) streets, drainage ways, shopping malls, car parks, playing fields, roadsides, and open space areas – in other words – right under their feet where they walk, play, breathe and work out their lives – not 'out there' in some mythic bushland or rural Arcadia.

It is right here in our personal and communal living spaces that people must address their ingrained and irrational arboreal fears and misunderstandings. They must reassess business and political 'quick-fix' solutions such as feel-good annual tree planting days, and demands to eliminate 'nuisance' trees, or to plant only miniscule trees and shrubs.

NSW CIVIL LIABILITY AMENDMENT (PERSONAL RESPONSIBILITY) ACT 2002

The passing of the NSW Civil Liability Amendment (Personal Responsibility) Act 2002 has considerably changed the public tree management situation in NSW.

The case of **Brodie vs Singleton Council** (206 CLR 512 Brodie) triggered repeal of the long-standing non-feasance immunity accorded to NSW roads authorities.

The repeal meant that NSW roads authorities became strictly responsible for knowing the condition of every artificial structure within their road network, as well as being held responsible for implementing whatever action, and at whatever cost was required

to repair every defect found during routine inspections. Since trees in the road reserve have been determined by the High Court of Australia to be 'artificial structures' they too had to be regulated and made totally safe or removed.

In repealing the non-feasance immunity it appears the High Court did not consider the cost burden of such draconian action and thus almost overnight, NSW roads authorities became sitting duck targets for liability claims for slips, trips and falls within the road reserve.

Inevitably trees and especially their roots became a most productive target for liability claims.

As a result of this situation the Statewide Mutual Insurance scheme received some 180 claims per week, at least until introduction of the Civil Liability Amendment (Personal Responsibility) Act 2002 (CLAPR Act 2002) at which time claims against Statewide members dropped dramatically to 20 per week.

The New South Wales CLAPR Act 2002 reinstated the non-feasance immunity for roads authorities by preventing the Courts from challenging the resources and funds that a roads authority allots to the roads management and this includes resources for managing 'artificial structures' such as trees.

TREE RISK MANAGEMENT IS NOT AN END IN ITSELF

Tree risk management is not a target that can be met – it is a systematic framework for 'right attention' to public safety. It follows that science must play a key role in determining the management needs and priorities for the biological components of towns, suburbs and cities. Economics matter, but the trap of short-term economic expediency has to be tempered by more open debate and acceptance of tree science before emotion and self-interest.

As Lonsdale [6] warns .. *"Risk management (RM) must not be allowed to become prescriptive toward trees – as in eg a prescriptive approach to chainsaws, mowers, concrete and building construction. There is danger where trees are concerned"*

He also advises that …*"Practitioners need to understand and apply principles distinct from operating as or like quality controllers on a production line"*

As well as getting roads, shops, utility services, houses and telecommunications right, we have to get the urban bio-elements right too – at present much of the tree element is in crisis, but showing a very brave face – all 'smiles' from the seemingly green bits above ground – but look closely and a different picture emerges – catastrophic soil and drainage events, repetitive waves of root excavation, annual crown 'lopping' and the like. Decay, disease, tree stress and terminal strain is causing dysfunction and high public risk. In this sort of climate perceptions of risk are amplified and fear motivates a return to the 'tried and proven' way of the quick fix - of seeing trees as dangerous objects.

Urban communities must strive to establish and sustain a healthy and realistically safe biological element (the urban forest) in and around every industry, retail area, car park, school, home, street, places of tourism, recreation and sport – only then can urban life become sustainable.

The adoption of systematic tree planning and maintenance strategies based on sound risk management and scientific principles, adequately resourced and funded, represents a logical way forward.

BACKGROUND TO BEST PRACTICE TREES AND TREE ROOTS MANUAL

A Fund Manager and a Board of Management administer the Statewide Mutual Insurance scheme. The Newcastle City Council Risk and Administrative Services Manager chairs the Statewide Risk Management Committee.

Newcastle, with a population of 140,000 is the largest member Council in the Statewide Mutual Insurance group. The lower Hunter region, of which Newcastle is the business centre, has a population of 500,000.

The Statewide Board of Management and the Risk Management Committee established a three year plan of initiatives of which the Best Practice manuals addressed approximately 90 per cent (in number and in dollars) of liability claims within all Local Government.

The manuals addressed:

- roads
- footpaths, nature strips and medians
- tree & tree roots
- gathering information
- certificates and applications
- signs as remote supervision

The Best Practice manuals are the frameworks providing a standard format for each member council to develop their own procedures based upon available resources.

It is not the goal of this paper to present a detailed review of the Statewide Risk Management system - however the Statewide website provided in the bibliography will assist with readers' enquiries.

Newcastle Council adopted the Statewide risk management framework in 1999 by committing in principle to the Best Practice procedures system.

Universally, tree managers acknowledge the social and economic benefits of whole-of-life tree management, but in Australia their employer organisations have been captive to the myth of trees as aggressors and dangerous objects. The result is that public and private trees tend to be managed reactively – work is driven by crisis complaints and political expediency or otherwise responded to only in emergencies. All other trees are usually left to fend for themselves in a commonly hostile natural and social environment – at least until they 'cause' fear, danger or damage when once again people react to eliminate the immediate tree problem.

This situation has been addressed in the revised **Statewide Best Practice Manual - Trees and Tree Roots version 2**, and represents a significant step toward an acceptance of whole-of-life tree management.

Quality controls for the purchase of new trees and formative pruning for newly establishing trees is recognised in the Best Practice Manual as a key activity in tree risk management.

Managing urban tree assets requires a high degree of alertness in order to understand and identify risks and to reasonably manage them without diminishing the values and benefits of the asset being managed. Wisdom therefore dictates a cautious approach.

Development of a risk management framework for urban trees presents a challenge not only for arboriculturists, but also for all involved in planning, designing and constructing urban environs. When all parties are involved, the right solutions will be found – but if the problem is left to the tree people then we sow the seeds of failure – as Maser observed "*as we think – so we manage*".

Our communities lack a sound basis on which to anchor the essential debate on the pros and cons of urban trees – at present discussion seems to come down to either a big picture argument where feelings, prejudices, and the taking of a 'position' dominate, or it comes down to personal accounts of terrible rogue trees. We simply do not know what it is that trees as individuals or as a collective, can do for us.

If the entirety of live trees and woody shrubs growing in a town, a city, or a region, regardless of land use or ownership, was acknowledged as an 'urban forest' we would be able (in time) to measure its benefits against its costs and achieve the best returns for investment. The North Americans, Canadians, British and other European countries already have well established urban forestry programs – yet in Australia we barely know of the concept yet. At present we are still debating the costs of each urban tree after it falls into crisis – as a result our progress is close to stalled.

Australian communities need to express their views on trees and they must be exposed to the broader picture. Positions must be debated but with a common goal – to gain the maximum safety, economic returns, air cleaning, stormwater capture, biological diversity, radiation protection, aesthetics, and heritage values from our urban trees as is possible. The debate will remain captive within existing economic and emotive arguments as long as it filters through a poor knowledge base of traditional bias and inherited pre-judgment about trees - eg trees cause bushfires; tall trees are dangerous, trees damage pipes, trees cause power failures and so on.

In almost every sizeable urban region in Australia the trend is for the highest proportion of tree services on commercial offer to be 'lopping' and block (land) clearing. Few, if any arboricultural or urban forestry consultant services exist outside the capital cities and even these services in the cities are limited and relatively disorganised with the exception of the recently inaugurated Institute of Australian Consulting Arborists (IACA). Too many commercial tree 'care' services seek to eliminate risk by topping trees or removing them – either way the tree loses and the contractor wins. This situation further illustrates the corrosive effects of the traditional view of trees as aggressive nuisances and inherently dangerous.

VERSION II: STATEWIDE BEST PRACTICE MANUAL - TREES AND TREE ROOTS

The original Statewide Mutual Tree Roots manual adopted the traditional view of trees already detailed in this paper. Newcastle City Council had adopted it in principle before I commenced working for the organisation in 2000.

On reviewing the document I found it impossible to see how I could comply without removing a very large number of high profile public trees and without avoiding replanting virtually anywhere within the urban streetscape unless with shrubs. This was because the Manual devised 'damage circles' – that is, it set specific distances from trees to pipes, cables, buildings, walls, fences, paths etc, warning that any tree planted into the red or orange zones could leave the Council without liability protection. The onus was put on Council to select small trees or not to plant at all. In

addition the manual presented the opinion of Sydney Water Authority on trees, which of course was essentially an argument for total exclusion of trees from the vicinity of their infrastructure.

I was sure that the producers of the first manual did not truly seek to eliminate trees but nonetheless that was going to be the inevitable outcome of our full compliance. I therefore sought and gained Statewide and Council support to revise the document completely.

I believe Judy Fakes of NSW TAFE Commission and I have established in the new manual a reasonable starting point for progress in the field of urban tree risk management.

Following is an overview of the Statewide Best Practice Manual version II. These points are relevant to consider when developing policies and strategies for tree risk management.

- **It Provides A Statement Of Tree Values**
  The manual provides a statement of the value for urban tree resources – an acknowledgement of value is critically important as it assists Councils to understand the existing and potential value of urban trees and the urban forest

- **It Is Not A Strategy To Eliminate Trees**
  The manual makes it clear that the aim is not to eliminate trees but to manage them with appropriate consideration for reducing members exposure to public risk. This is important as it approaches the matter holistically and from multiple perspective's.

- **Values Presented are Neutral**
  Unlike its predecessor version, the new manual intentionally avoids bias, anthropomorphism and dogma common to much tree belief and practice. The new Manual avoids the traditional bias that promoted trees and roots as 'aggressive' or otherwise motivated by subversive intentions.

- **Acknowledges The Urban Forest**
  The manual acknowledges that it operates within a much broader and overall important social and ecological infrastructure element - the urban forest. The manual gives guidance for tree management within a broad urban forestry framework

- **Encourages an Interdisciplinary Approach**
  The manual encourages an interdisciplinary approach to addressing tree and urban forestry management in terms of design, construction, maintenance, and decommissioning of public infrastructure elements. Tree managers are not singled out to control or eliminate 'their' trees - whilst tree managers are crucial players in tree risk management, they operate within a much larger social, political complex and can have little influence without strong interdisciplinary cohesion and support.

- **Does not seek to blame trees**
  As satisfying as it may seem in the short term, tree and tree root problems will never be effectively solved by blaming trees for their interactions with built structures or blaming trees for their negative responses following damage imposed on them by human activities. The new manual avoids adopting a position of blame.

- **Promotes whole-of-life tree management**
  Promotes a commitment to whole-of-life tree management in place of the traditional politically reactive and demand driven model characterised by a high-risk exposure that cannot not deliver the potential benefits of trees proportional to their management costs.

- **Provides The Insurer With Evidence To Defend Claims Against Members**
  Adoption of the new Manual reduces member Councils risk exposure and there are a number of benefits to this – economics are part of the equation – but economics are secondary to respect for the sanctity of human life which is the primary goal driving risk management – despite a common belief it is not about reducing insurance premiums, although such potential outcome is a powerful motivator for its adoption. The Insurer is better able to defend claims against members when the member produces evidence of a systematic strategy based on periodic inspections, good record keeping, timely responses and adequate resources.

- **Presents A Framework For Tree Risk Management**
  The new Manual describes the legal concept of reasonableness in terms of tree management as comprising these elements:

- a tree resource inventory
- cyclical tree inspections
- periodic tree maintenance
- adequate record keeping
- based on an approved policy and procedures manual

  This holistic approach is a quantum step from the prevailing political and crisis driven approach prior to 2002.

- **Presents A Defendable Framework For Tree Risk Management**
  Adoption of the new manual procedures provides a defence in the event of action against a member Council relating to trees and tree roots.

  It also provides a defence for Tree Management Order (TMO or TPO) refusals - ie the best Practice approach requires a tree to be visually assessed by an appropriately qualified person working from ground level – it does not require detailed investigative and exploratory inspections except where visible evidence of a potential weakness presents itself.

Mattheck[5] reports the draconian responsibility imposed by the German courts, requiring a yearly, detailed whole-of-tree inspection for every public tree. The approach was quickly found to be enormously expensive, onerous and completely unreasonable – it was disbanded in favour of a systematic ground level visual assessment with a more detailed inspection required only if specific visible characteristics indicate the need.

CONCLUSIONS

Community attitudes have long held sway over tree management practices and tree risk priorities however it is apparent now that tree risk management in the future is going to be based far more on scientific principles and goals for urban sustainability. The Civil Liability Amendment Act 2002 and the Statewide Mutual Best Practice Trees and Trees Roots Manual represent a significant boost for NSW Councils and the communities they serve.

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